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FILE 'HOME' ENTERED AT 14:06:18 ON 06 JUN 2007

=> fil medline biosis caplus embase wpids

COST IN U.S. DOLLARS

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ENTRY

SESSION

FULL ESTIMATED COST

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FILE 'MEDLINE' ENTERED AT 14:06:45 ON 06 JUN 2007

FILE 'BIOSIS' ENTERED AT 14:06:45 ON 06 JUN 2007

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FILE 'WPIDS' ENTERED AT 14:06:45 ON 06 JUN 2007

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=> e kozlowski rolan/au

MISSING TERM FOR FIELD QUALIFICATION BEFORE '/AU'

The search profile entered contains a field qualifier, e.g., '/AU', with no term preceding it.

=> e kozlowski rolan?/au

E1	1	KOZLOWSKI ROBERT EDWARD/AU
E2	34	KOZLOWSKI ROBERT H/AU
E3	0 -->	KOZLOWSKI ROLAN?/AU
E4	9	KOZLOWSKI ROLAND/AU
E5	103	KOZLOWSKI ROLAND Z/AU
E6	1	KOZLOWSKI ROLAND ZBIGNIEW/AU
E7	1	KOZLOWSKI ROMAIN/AU
E8	49	KOZLOWSKI ROMAN/AU
E9	5	KOZLOWSKI RONALD/AU
E10	1	KOZLOWSKI RONALD J/AU
E11	1	KOZLOWSKI RONALD N/AU
E12	1	KOZLOWSKI ROSEMARIE/AU

=> e4-e6

L1 113 ("KOZLOWSKI ROLAND"/AU OR "KOZLOWSKI ROLAND Z"/AU OR "KOZLOWSKI ROLAND ZBIGNIEW"/AU)

=> cytosol? (s) accessory

L2 164 CYTOSOL? (S) ACCESSORY

=> l1 and l2

L3 1 L1 AND L2

=> d ibib abs 13

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:757735 CAPLUS
DOCUMENT NUMBER: 139:257751
TITLE: Arrays and methods
INVENTOR(S): Kozlowski, Roland; Blackburn, Jonathan
Michael; Davies, Andrew; Godber, Benjamin Leslie
James; Hart, Darren James
PATENT ASSIGNEE(S): Sense Proteomic Limited, UK
SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003078464	A2	20030925	WO 2003-GB1049	20030313
WO 2003078464	A3	20040205		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
CA 2518927	A1	20030925	CA 2003-2518927	20030313
AU 2003212526	A1	20030929	AU 2003-212526	20030313
GB 2402131	A	20041201	GB 2003-10085	20030313
EP 1485411	A2	20041215	EP 2003-708346	20030313
EP 1485411	B1	20070509		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
US 2005181449	A1	20050818	US 2003-506756	20030313
JP 2006501141	T	20060112	JP 2003-576468	20030313
PRIORITY APPLN. INFO.:			GB 2002-5910	A 20020313
			WO 2003-GB1049	W 20030313

AB Arrays of cytosolic accessory proteins are provided, together with methods of screening, using such arrays.

=> 12 and array

L4 2 L2 AND ARRAY

=> 14 not 13

L5 1 L4 NOT L3

=> d ibib abs 15

L5 ANSWER 1 OF 1 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
ACCESSION NUMBER: 2003-779116 [73] WPIDS
DOC. NO. CPI: C2003-214547 [73]
TITLE: New array comprising surface having an attached cytosolic accessory protein free of its membrane protein components or other sub-units, useful for measuring the relative catalytic activity of accessory proteins

DERWENT CLASS: B04; D16
 INVENTOR: BLACKBURN J M; DAVIES A; GODBER B L J; HART D J;
 KOZLOWSKI R; BLACKBURN J; GODBER B; HART D
 PATENT ASSIGNEE: (BLAC-I) BLACKBURN J M; (KOZL-I) KOZLOWSKI R; (SENS-N)
 SENSE PROTEOMIC LTD
 COUNTRY COUNT: 102

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
WO 2003078464	A2	20030925	(200373)*	EN	39[10]	
AU 2003212526	A1	20030929	(200432)	EN		
GB 2402131	A	20041201	(200479)	EN		
EP 1485411	A2	20041215	(200482)	EN		
US 20050181449	A1	20050818	(200555)	EN		
JP 2006501141	W	20060112	(200604)	JA	24	
AU 2003212526	A8	20051027	(200624)	EN		
EP 1485411	B1	20070509	(200732)	EN		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2003078464	A2	WO 2003-GB1049	20030313
AU 2003212526	A1	AU 2003-212526	20030313
AU 2003212526	A8	AU 2003-212526	20030313
EP 1485411	A2	EP 2003-708346	20030313
JP 2006501141	W	JP 2003-576468	20030313
GB 2402131	A	WO 2003-GB1049	20030313
EP 1485411	A2	WO 2003-GB1049	20030313
US 20050181449	A1	WO 2003-GB1049	20030313
JP 2006501141	W	WO 2003-GB1049	20030313
GB 2402131	A	GB 2003-10085	20030501
US 20050181449	A1	US 2005-506756	20050328
EP 1485411	B1	EP 2003-708346	20030313
EP 1485411	B1	WO 2003-GB1049	20030313

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2003212526	A1	WO 2003078464
GB 2402131	A	WO 2003078464
EP 1485411	A2	WO 2003078464
JP 2006501141	W	WO 2003078464
AU 2003212526	A8	WO 2003078464
EP 1485411	B1	WO 2003078464

PRIORITY APPLN. INFO: GB 2002-5910 20020313
 GB 2003-10085 20030501

AN 2003-779116 [73] WPIDS
 AB WO 2003078464 A2 UPAB: 20060120

NOVELTY - An array comprising a surface having an attached cytosolic accessory protein that is free of its membrane protein components or other sub-units with which it is normally complexed, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

(1) determining which cytosolic accessory proteins interact with a given membrane protein or vice versa by:

(a) providing the array of candidate cytosolic accessory proteins;

(b) contacting the array with cytosolic fragments of the membrane protein and/or cytosolic fragments of other related membrane protein family membrane; and
 (c) detecting and identifying the interacting partners;
 (2) screening compounds, peptides or proteins for the ability to interact selectively with a cytosolic accessory protein by:
 (a) providing the array of candidate cytosolic accessory proteins;
 (b) contacting the array with compounds, peptides or proteins; and
 (c) identifying the interacting partners; and
 (3) screening compounds, peptides or proteins for the ability to selectively modulate the interaction between a cytosolic accessory protein and a membrane protein by:
 (a) providing the array of candidate cytosolic accessory proteins; and
 (b) contacting the array with compounds, peptides or proteins and with one or more membrane proteins or its cytosolic fragments, either simultaneously or in sequence.

USE - The array is useful for measuring the relative catalytic activity of different members of a family of accessory proteins, as an affinity surface on which to select antibodies from a library of phenotype-genotype-linked antibodies, e.g. phage displayed antibodies, and for determining the effect of post-translational modifications on the interactions of accessory proteins with membrane proteins and/or on the properties of the membrane proteins (all claimed).

=> dup rem l2
 PROCESSING COMPLETED FOR L2
 L6 62 DUP REM L2 (102 DUPLICATES REMOVED)

=> d ibib abs l6 1-62

L6 ANSWER 1 OF 62 MEDLINE on STN DUPLICATE 1
 ACCESSION NUMBER: 2007239120 IN-PROCESS
 DOCUMENT NUMBER: PubMed ID: 17344482
 TITLE: A Ser/Thr kinase required for membrane-associated assembly of the major sperm protein motility apparatus in the amoeboid sperm of *Ascaris*.
 AUTHOR: Yi Kexi; Buttery Shawanna M; Stewart Murray; Roberts Thomas M
 CORPORATE SOURCE: Department of Biological Science, Florida State University, Tallahassee, FL 32306, USA.
 CONTRACT NUMBER: GM-29994 (NIGMS)
 SOURCE: Molecular biology of the cell, (2007 May) Vol. 18, No. 5, pp. 1816-25. Electronic Publication: 2007-03-07. Journal code: 9201390. ISSN: 1059-1524.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
 LANGUAGE: English
 FILE SEGMENT: NONMEDLINE; IN-PROCESS; NONINDEXED; Priority Journals
 ENTRY DATE: Entered STN: 24 Apr 2007
 Last Updated on STN: 31 May 2007
 AB Leading edge protrusion in the amoeboid sperm of *Ascaris suum* is driven by the localized assembly of the major sperm protein (MSP) cytoskeleton in the same way that actin assembly powers protrusion in other types of crawling cell. Reconstitution of this process in vitro led to the identification of two accessory proteins required for MSP polymerization: an integral membrane phosphoprotein, MSP polymerization-organizing protein (MPOP), and a cytosolic

component, MSP fiber protein 2 (MFP2). Here, we identify and characterize a 34-kDa cytosolic protein, MSP polymerization-activating kinase (MPAK) that links the activities of MPOP and MFP2. Depletion/add-back assays of sperm extracts showed that MPAK, which is a member of the casein kinase 1 family of Ser/Thr protein kinases, is required for motility. MPOP and MPAK comigrated by native gel electrophoresis, coimmunoprecipitated, and colocalized by immunofluorescence, indicating that MPOP binds to and recruits MPAK to the membrane surface. MPAK, in turn, phosphorylated MFP2 on threonine residues, resulting in incorporation of MFP2 into the cytoskeleton. Beads coated with MPAK assembled a surrounding cloud of MSP filaments when incubated in MPAK-depleted sperm extract, but only when supplemented with detergent-solubilized MPOP. Our results suggest that interactions involving MPOP, MPAK, and MFP2 focus MSP polymerization to the plasma membrane at the leading edge of the cell thereby generating protrusion and minimizing nonproductive filament formation elsewhere.

L6 ANSWER 2 OF 62 MEDLINE on STN DUPLICATE 2
 ACCESSION NUMBER: 2006247383 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16477040
 TITLE: MyD88-dependent and -independent signaling by IL-1 in neurons probed by bifunctional Toll/IL-1 receptor domain/BB-loop mimetics.
 AUTHOR: Davis Christopher N; Mann Enrique; Behrens M Margarita; Gaidarova Svetlana; Rebek Mitra; Rebek Julius Jr; Bartfai Tamas
 CORPORATE SOURCE: The Harold L. Dorris Neurological Institute, La Jolla, CA 92037, USA.
 CONTRACT NUMBER: R01 NS043501 (NINDS)
 SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (2006 Feb 21) Vol. 103, No. 8, pp. 2953-8. Electronic Publication: 2006-02-13. Journal code: 7505876. ISSN: 0027-8424.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, N.I.H., EXTRAMURAL)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200606
 ENTRY DATE: Entered STN: 5 May 2006
 Last Updated on STN: 14 Jun 2006
 Entered Medline: 13 Jun 2006
 AB Interleukin (IL)-1beta is a pluripotent proinflammatory cytokine that signals through the type-I IL-1 receptor (IL-1RI), a member of the Toll-like receptor family. In hypothalamic neurons, binding of IL-1beta to IL-1RI mediates transcription-dependent changes that depend on the recruitment of the cytosolic adaptor protein myeloid differentiation primary-response protein 88 (MyD88) to the IL-1RI/IL-1 receptor accessory protein (IL-1RAcP) complex through homomeric Toll/IL-1 receptor (TIR)-TIR interactions. Through design and synthesis of bifunctional TIR mimetics that disrupt the interaction of MyD88 with the IL-1RI/IL-1RAcP complex, we analyzed the involvement of MyD88 in the signaling of IL-1beta in anterior hypothalamic neurons. We show here that IL-1beta-mediated activation of the protein tyrosine kinase Src depended on a MyD88 interaction with the IL-1RI/IL-1RAcP complex. The activation of the protein kinase Akt/PKB depended on the recruitment of the p85 subunit of PI3K to IL-1RI and independent of MyD88 association with the IL-1RI/IL-1RAcP complex. These bifunctional TIR-TIR mimetics represent a class of low-molecular-weight compounds with both an antiinflammatory and neuroprotective potential. These compounds have the potential to inhibit the MyD88-dependent proinflammatory actions of IL-1beta, while permitting the potential neuronal survival supporting actions mediated by the MyD88-independent activation of the protein kinase Akt.

L6 ANSWER 3 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
 ACCESSION NUMBER: 2007:268191 BIOSIS
 DOCUMENT NUMBER: PREV200700259548
 TITLE: Expression of ZAP-70 in chronic lymphocytic leukemia cells
 enhances CD79b phosphorylation following surface IgM
 ligation.
 AUTHOR(S): Chen, Liguang [Reprint Author]; Apgar, John; Tang, Li;
 Kipps, Thomas J.
 CORPORATE SOURCE: Univ Calif San Diego, Moores UCSD Canc Ctr, San Diego, CA
 92103 USA
 SOURCE: Blood, (NOV 16 2006) Vol. 108, No. 11, Part 1, pp. 792A.
 Meeting Info.: 48th Annual Meeting of the
 American-Society-of-Hematology. Orlando, FL, USA. December
 09 -12, 2006. Amer Soc Hematol.
 CODEN: BLOOAW. ISSN: 0006-4971.
 DOCUMENT TYPE: Conference; (Meeting)
 Conference; (Meeting Poster)
 LANGUAGE: English
 ENTRY DATE: Entered STN: 25 Apr 2007
 Last Updated on STN: 25 Apr 2007

AB CD79b is B-cell surface molecule that non-covalently associates with CD79a
 and surface immunoglobulin (sIg), which together serve as the B-cell
 receptor complex (BCR). Both CD79a and CD79b have cytosolic
 immunoreceptor tyrosine-based activation motifs (ITAMs) that can become
 phosphorylated following sIg ligation, thereby allowing for recruitment to
 the BCR complex of cytosolic kinases, such as p72(Syk), which then can
 initiate downstream intracellular signaling events. Compared to normal B
 cells, chronic lymphocytic leukemia (CLL) B cells typically expresses low
 levels of CD79b, which is speculated to contribute to the relatively poor
 capacity of CLL cells to initiate intracellular signaling following BCR
 ligation despite having apparently adequate levels of p72(Syk). BCR
 signaling in CLL cells can be enhanced by expression of the
 zeta-associated protein of 70 kD (ZAP-70), a tyrosine kinase that
 initially was identified in T cells, where it plays a critical role in the
 phosphorylation of ITAMs of the accessory molecules of the T-cell receptor
 (TCR) complex for antigen following TCR ligation. We investigated for
 phosphorylation of CD79b following BCR ligation with F(ab)(2) anti- mu
 antibody in CLL cell samples that did or did not express ZAP-70. All CLL
 cell samples expressed similar amounts of surface IgM and p72(Syk), as
 assessed via flow cytometry and immunoblot analysis. Within 10 minutes
 after treatment with anti-mu the CLL cell samples that expressed ZAP-70 (n
 = 28) experienced a mean increase in phosphorylation of CD79b of 21.5%
 (+/- 14.0% S.D.), which was significantly greater than the 7.5% increase (
 7.9% S.D.) experienced by similarly treated CLL cell samples that did not
 express ZAP-70 (n = 19) (P < 0.01). Immune precipitation studies
 demonstrated association of CD79b with P72(Syk) in CLL B cells. CLL cell
 samples (n = 5) lacking expression of ZAP-70 were transfected with a
 control vector or an expression vector encoding ZAP-70, allowing us to
 examine the effect that engineered-expression of ZAP-70 has on CD79
 phosphorylation following treatment with anti-p. Anti-p treatment induced
 significantly higher mean levels of CD79b phosphorylation in CLL samples
 made to express ZAP-70 (33% +/- 16%) than in control mock-transfected CLL
 cells (4% +/- 2%). This also was associated with enhanced anti-p induced
 phosphorylation of p72(Syk). We conclude that expression of ZAP-70 in CLL
 B cells enhances phosphorylation of the accessory molecules in
 the BCR complex following sIg ligation, potentially allowing for improved
 recruitment of cytosolic kinases and adapter proteins to these
 accessory molecules for enhanced BCR signaling.

L6 ANSWER 4 OF 62 MEDLINE on STN
 ACCESSION NUMBER: 2005523961 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16198296

DUPLICATE 3

TITLE: Regulation of protein compartmentalization expands the diversity of protein function.
 AUTHOR: Shaffer Kelly L; Sharma Ajay; Snapp Erik L; Hegde Ramanujan S
 CORPORATE SOURCE: Cell Biology and Metabolism Branch, National Institute of Child Health and Human Development, National Institutes of Health, Bethesda, MD 20892, USA.
 SOURCE: Developmental cell, (2005 Oct) Vol. 9, No. 4, pp. 545-54. Journal code: 101120028. ISSN: 1534-5807.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, N.I.H., INTRAMURAL)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200511
 ENTRY DATE: Entered STN: 4 Oct 2005
 Last Updated on STN: 15 Dec 2005
 Entered Medline: 21 Nov 2005

AB Proteins destined for the secretory pathway are translocated into the endoplasmic reticulum (ER) by signal sequences that vary widely in their functional properties. We have investigated whether differences in signal sequence function have been exploited for cellular benefit. A cytosolic form of the ER chaperone calreticulin was found to arise by an aborted translocation mechanism dependent on its signal sequence and factors in the ER lumen and membrane. A signal sequence that functions independently of these accessory translocation factors selectively eliminated cytosolic calreticulin. In vivo replacement of endogenous calreticulin with a constitutively translocated form influenced glucocorticoid receptor-mediated gene activation without compromising chaperone activity in the ER. Thus, in addition to its well-established ER luminal functions, calreticulin has an independent role in the cytosol that depends critically on its inefficient compartmentalization. We propose that regulation of protein translocation represents a potentially general mechanism for generating diversity of protein function.

L6 ANSWER 5 OF 62 MEDLINE on STN DUPLICATE 4
 ACCESSION NUMBER: 2005112874 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 15588255
 TITLE: Activation and assembly of the NADPH oxidase: a structural perspective.
 AUTHOR: Groemping Yvonne; Rittinger Katrin
 CORPORATE SOURCE: Abteilung Biomolekulare Mechanismen, Max-Planck-Institut fur medizinische Forschung, Heidelberg, Germany.
 SOURCE: The Biochemical journal, (2005 Mar 15) Vol. 386, No. Pt 3, pp. 401-16. Ref: 195
 Journal code: 2984726R. E-ISSN: 1470-8728.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE) (RESEARCH SUPPORT, NON-U.S. GOV'T) General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200508
 ENTRY DATE: Entered STN: 4 Mar 2005
 Last Updated on STN: 26 Aug 2005
 Entered Medline: 25 Aug 2005

AB The NADPH oxidase of professional phagocytes is a crucial component of the innate immune response due to its fundamental role in the production of reactive oxygen species that act as powerful microbicidal agents. The activity of this multi-protein enzyme is dependent on the regulated assembly of the six enzyme subunits at the membrane where oxygen is reduced to superoxide anions. In the resting state, four of the enzyme subunits are maintained in the cytosol, either through

auto-inhibitory interactions or through complex formation with accessory proteins that are not part of the active enzyme complex. Multiple inputs are required to disrupt these inhibitory interactions and allow translocation to the membrane and association with the integral membrane components. Protein interaction modules are key regulators of NADPH oxidase assembly, and the protein-protein interactions mediated via these domains have been the target of numerous studies. Many models have been put forward to describe the intricate network of reversible protein interactions that regulate the activity of this enzyme, but an all-encompassing model has so far been elusive. An important step towards an understanding of the molecular basis of NADPH oxidase assembly and activity has been the recent solution of the three-dimensional structures of some of the oxidase components. We will discuss these structures in the present review and attempt to reconcile some of the conflicting models on the basis of the structural information available.

L6 ANSWER 6 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:266401 CAPLUS

DOCUMENT NUMBER: 140:420473

TITLE: Docking of cytosolic chaperone-substrate complexes at the membrane ATPase during flagellar type III protein export

AUTHOR(S): Thomas, Joanne; Stafford, Graham P.; Hughes, Colin

CORPORATE SOURCE: Department of Pathology, Cambridge University, Cambridge, CB2 1OP, UK

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2004), 101(11), 3945-3950
CODEN: PNASA6; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bacterial type III protein export underlies flagellum assembly and delivery of virulence factors into eukaryotic cells. The sequence of protein interactions underlying the export pathway are poorly characterized; in particular, it is not known how chaperoned substrates in the cytosol are engaged by the membrane-localized export apparatus. We have identified a stalled intermediate export complex in the flagellar type III export pathway of *Salmonella typhimurium* by generating dominant-neg. chaperone variants that are export-defective and arrest flagellar assembly in the wild-type bacterium. These chaperone variants bound their specific export substrates strongly and severely reduced their export. They also attenuated export of other flagellar proteins, indicating that inhibition occurs at a common step in the pathway. Unlike the cytosolic wild-type chaperone, the variants localized to the inner membrane, but not in the absence of the flagellar type III export apparatus. Membrane localization persisted in *fliOPQR*, *flhB*, *flhA*, *fliJ*, and *fliH* null mutants lacking specific flagellar export components but depended on the presence of the membrane-associated ATPase *Flil*. After expression of the variant chaperones in *Salmonella*, a stalled intermediate export complex, which contained chaperone, substrate, and the *Flil* ATPase with its regulator *FliH*, was isolated. Neither chaperone nor substrate alone was able to interact with liposome-associated *Flil*, but the chaperone-substrate-*Flil*(*FliH*) complex was assembled when chaperone was prebound to its substrate. Our data establish a key event in the type III protein export mechanism, docking of the cytosolic chaperone-substrate complex at the ATPase of the membrane-export apparatus

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 62 MEDLINE on STN

DUPLICATE 5

ACCESSION NUMBER: 2004430266 MEDLINE

DOCUMENT NUMBER: PubMed ID: 15336975

TITLE: Ryanodine receptor channelopathies.

AUTHOR: Benkusky Nancy A; Farrell Emily F; Valdivia Hector H
 CORPORATE SOURCE: Department of Physiology, University of Wisconsin Medical School, Madison, WI 53706, USA.
 CONTRACT NUMBER: HL-55438 (NHLBI)
 P01-HL705403 (NHLBI)
 SOURCE: Biochemical and biophysical research communications, (2004 Oct 1) Vol. 322, No. 4, pp. 1280-5. Ref: 39
 Journal code: 0372516. ISSN: 0006-291X.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200411
 ENTRY DATE: Entered STN: 1 Sep 2004
 Last Updated on STN: 19 Dec 2004
 Entered Medline: 23 Nov 2004

AB Ryanodine receptors (RyR) are the Ca²⁺ release channels of sarcoplasmic reticulum that provide the majority of the [Ca²⁺] necessary to induce contraction of cardiac and skeletal muscle cells. In their cellular environment, RyRs are exquisitely regulated by a variety of cytosolic factors and accessory proteins so that their output signal (Ca²⁺) induces cell contraction without igniting signaling pathways that eventually lead to contractile dysfunction or pathological cellular remodeling. Here we review how dysfunction of RyRs, most commonly expressed as enhanced Ca²⁺ release at rest (skeletal muscle) or during diastole (cardiac muscle), appears to be the fundamental mechanism underlying several genetic or acquired syndromes. In skeletal muscle, malignant hyperthermia and central core disease result from point mutations in RYR1, the skeletal isoform of RyRs. In cardiac muscle, RYR2 mutations lead to catecholaminergic polymorphic ventricular tachycardia and other cardiac arrhythmias. Lastly, an altered phosphorylation of the RyR2 protein may be involved in some forms of congestive heart failure. Copyright 2004 Elsevier Inc.

L6 ANSWER 8 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN DUPLICATE 6
 ACCESSION NUMBER: 2003:757735 CAPLUS
 DOCUMENT NUMBER: 139:257751
 TITLE: Arrays and methods
 INVENTOR(S): Kozlowski, Roland; Blackburn, Jonathan Michael;
 Davies, Andrew; Godber, Benjamin Leslie James; Hart,
 Darren James
 PATENT ASSIGNEE(S): Sense Proteomic Limited, UK
 SOURCE: PCT Int. Appl., 39 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003078464	A2	20030925	WO 2003-GB1049	20030313
WO 2003078464	A3	20040205		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,

FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

CA 2518927	A1	20030925	CA 2003-2518927	20030313
AU 2003212526	A1	20030929	AU 2003-212526	20030313
GB 2402131	A	20041201	GB 2003-10085	20030313
EP 1485411	A2	20041215	EP 2003-708346	20030313
EP 1485411	B1	20070509		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

US 2005181449	A1	20050818	US 2003-506756	20030313
JP 2006501141	T	20060112	JP 2003-576468	20030313

PRIORITY APPLN. INFO.: GB 2002-5910 A 20020313
 WO 2003-GB1049 W 20030313

AB Arrays of cytosolic accessory proteins are provided,
 together with methods of screening, using such arrays.

L6 ANSWER 9 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:613914 CAPLUS

DOCUMENT NUMBER: 139:271887

TITLE: Transcriptional regulation of the cytosolic chaperonin
 θ subunit gene, Cctq, by Ets domain
 transcription factors Elk-1, Sap-1a, and Net in the
 absence of serum response factor

AUTHOR(S): Yamazaki, Yuji; Kubota, Hiroshi; Nozaki, Masami;
 Nagata, Kazuhiro

CORPORATE SOURCE: Institute for Frontier Medical Sciences, Department of
 Molecular and Cellular Biology, Kyoto University,
 CREST/JST, Sakyo-ku, Kyoto, 606-8397, Japan

SOURCE: Journal of Biological Chemistry (2003), 278(33),
 30642-30651

CODEN: JBCHA3; ISSN: 0021-9258

PUBLISHER: American Society for Biochemistry and Molecular
 Biology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The chaperonin-containing t-complex polypeptide 1 (CCT) is a mol. chaperone
 that facilitates protein folding in eukaryotic cytosol, and the expression
 of CCT is highly dependent on cell growth. We show here that
 transcription of the gene encoding the θ subunit of mouse CCT, Cctq,
 is regulated by the ternary complex factors (TCFs), Elk-1, Sap-1a, and Net
 (Sap-2). Reporter gene assay using HeLa cells indicated that the Cctq
 gene promoter contains a cis-acting element of the CCGGAAGT sequence
 (CQE1) at -36 bp. The major CQE1-binding proteins in HeLa cell nuclear
 extract was recognized by anti-Elk-1 or anti-Sap-1a antibodies in
 electrophoretic mobility shift assay, and recombinant Elk-1, Sap-1a, or
 Net specifically recognized CQE1. The CQE1-dependent transcriptional
 activity in HeLa cells was virtually abolished by overexpression of the
 DNA binding domains of TCFs. Overexpression of full-length TCFs with Ras
 indicated that exogenous TCFs can regulate the CQE1-dependent
 transcription in a Ras-dependent manner. PD98059, an inhibitor of MAPK,
 significantly repressed the CQE1-dependent transcription. However, no
 serum response factor was detected by electrophoretic mobility shift assay
 using the CQE1 element. These results indicate that transcription of the
 Cctq gene is regulated by TCFs under the control of the Ras/MAPK pathway,
 probably independently of serum response factor.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 62 MEDLINE on STN DUPLICATE 7

ACCESSION NUMBER: 2003143345 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12488316

TITLE: Pathways accessory to proteasomal proteolysis are less
 efficient in major histocompatibility complex class I

antigen production.

AUTHOR: Kessler Benedikt; Hong Xu; Petrovic Jelena; Borodovsky Anna; Dantuma Nico P; Bogyo Matthew; Overkleeft Herman S; Ploegh Hidde; Glas Rickard

CORPORATE SOURCE: Department of Pathology, Harvard Medical School, Boston, Massachusetts 02115, USA.

SOURCE: The Journal of biological chemistry, (2003 Mar 21) Vol. 278, No. 12, pp. 10013-21. Electronic Publication: 2002-12-16.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200305

ENTRY DATE: Entered STN: 28 Mar 2003
Last Updated on STN: 6 May 2003
Entered Medline: 5 May 2003

AB Degradation of cytosolic proteins depends largely on the proteasome, and a fraction of the cleavage products are presented as major histocompatibility complex (MHC) class I-bound ligands at the cell surface of antigen presenting cells. Proteolytic pathways accessory to the proteasome contribute to protein turnover, and their up-regulation may complement the proteasome when proteasomal proteolysis is impaired. Here we show that reduced reliance on proteasomal proteolysis allowed a reduced efficiency of MHC class I ligand production, whereas protein turnover and cellular proliferation were maintained. Using the proteasomal inhibitor adamantane-acetyl-(6-aminohexanoyl)3-(leucinyl)3-vinyl-(methyl)-sulphone, we show that covalent inhibition of all three types of proteasomal beta-subunits (beta(1), beta(2), and beta(5)) was compatible with continued growth in cells that up-regulate accessory proteolytic pathways, which include cytosolic proteases as well as deubiquitinating enzymes. However, under these conditions, we observed poor assembly of H-2D(b) molecules and inhibited presentation of endogenous tumor antigens. Thus, the tight link between protein turnover and production of MHC class I ligands can be broken by enforcing the substitution of the proteasome with alternative proteolytic pathways.

L6 ANSWER 11 OF 62 MEDLINE on STN DUPLICATE 8

ACCESSION NUMBER: 2003370047 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12775213

TITLE: Protein-protein, protein-RNA and protein-lipid interactions of signal-recognition particle components in the hyperthermoacidophilic archaeon *Acidianus ambivalens*.

AUTHOR: Moll Ralf G

CORPORATE SOURCE: Department of Biochemistry, University of Lubeck, Ratzeburger Allee 160, 23538 Lubeck, Germany..
moll@biochem.uni-luebeck.de

SOURCE: The Biochemical journal, (2003 Aug 15) Vol. 374, No. Pt 1, pp. 247-54.

Journal code: 2984726R. ISSN: 0264-6021.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200309

ENTRY DATE: Entered STN: 8 Aug 2003
Last Updated on STN: 24 Sep 2003
Entered Medline: 23 Sep 2003

AB The signal-recognition particle (SRP) of one of the most acidophilic and hyperthermophilic archaeal cells, *Acidianus ambivalens*, and its putative

receptor component, FtsY (prokaryotic SRP receptor), were investigated in detail. *A. ambivalens* Ffh (fifty-four-homologous protein) was shown to be a soluble protein with strong affinity to membranes. In its membrane-residing form, Ffh was extracted from plasma membranes with chaotropic agents like urea, but not with agents diminishing electrostatic interactions. Using unilamellar tetraether phospholipid vesicles, both Ffh and FtsY associate independently from each other in the absence of other factors, suggesting an equilibrium of soluble and membrane-bound protein forms under in vivo conditions. The Ffh protein precipitated from cytosolic cell supernatants with anti-Ffh antibodies, together with an 7 S-like SRP-RNA, suggesting a stable core ribonucleoprotein composed of both components under native conditions. The SRP RNA of *A. ambivalens* depicted a size of about 309 nucleotides like the SRP RNA of the related organism *Sulfolobus acidocaldarius*. A stable heterodimeric complex composed of Ffh and FtsY was absent in cytosolic supernatants, indicating a transiently formed complex during archaeal SRP targeting. The FtsY protein precipitated in cytosolic supernatants with anti-FtsY antisera as a homomeric protein lacking accessory protein components. However, under in vitro conditions, recombinantly generated Ffh and FtsY associate in a nucleotide-independent manner, supporting a structural receptor model with two interacting apoproteins.

L6 ANSWER 12 OF 62 WPIDS COPYRIGHT 2007 THE THOMSON CORP on STN
 ACCESSION NUMBER: 2002-521946 [56] WPIDS
 DOC. NO. CPI: C2002-147813 [56]
 TITLE: Selectively incorporating a proteinaceous target molecule complex into a virus like particle for screening or purifying recombinant molecules comprises co-expressing target molecules in recombinant cells with signal molecules
 DERWENT CLASS: B04; D16
 INVENTOR: HUNT N
 PATENT ASSIGNEE: (EVOT-N) EVOTEC OAI AG
 COUNTRY COUNT: 26

PATENT INFO ABBR.:

PATENT NO	KIND	DATE	WEEK	LA	PG	MAIN IPC
EP 1219705	A1	20020703	(200256)*	EN	68[25]	

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
EP 1219705	A1	EP 2000-128686	20001229

PRIORITY APPLN. INFO: EP 2000-128686 20001229

AN 2002-521946 [56] WPIDS

AB EP 1219705 A1 UPAB: 20050526

NOVELTY - Selectively incorporating (M1) or encapsulating a proteinaceous target molecule complex into a virus like particle or physically associating a two component proteinaceous target molecule complex with a virus like particle comprising co-expressing target molecules in recombinant cells together with signal molecules, is new.

DETAILED DESCRIPTION - (M1) comprises co-expressing in cells:

(a) a first component of the target molecule complex, where the first component has a first amino acid sequence and a second amino acid sequence;

(b) a second component of the target molecule complex; and

(c) a signal molecule comprising a first amino acid sequence and a second amino acid sequence, the latter of which confers on the signal molecules the ability to assemble into a virus like particle and

preferably to be released in an extracellular environment.

The first amino acid sequences of the signal molecules functionally operate in a non-covalent manner with the first amino acid sequence of the first component of the target molecule complex so as to incorporate or encapsulate the target molecule complex into, or associate the target molecule complex with the virus like particle.

INDEPENDENT CLAIMS are also included for:

(1) a virus like particle obtained by (M1);
(2) a reagent kit comprising the virus like particle with the incorporated or encapsulated, or physically associated target molecule complexes; and

(3) a medicament or its precursor comprising the virus like particle containing the incorporated or encapsulated, or physically associated target molecule complexes.

USE - (M1) is useful for achieving enrichment of substances (e.g. proteins, polynucleotides, oligonucleotides, organic molecules of lower molecular weights or ions) in a medium in which cells are arranged when the virus-like particles are released in the medium, where the virus-like particles incorporate, encapsulate or are associated with the substances. The virus-like particles are useful for concentrating, isolating or purifying recombinant molecules (all claimed). (M1) is particularly useful in pharmaceutical screening and functional genomics, e.g. for detecting compounds influencing viral maturation, identifying modulators of cell surface protein-mediated activity or identifying modulators of receptor- or ion channel-mediated activity.

L6 ANSWER 13 OF 62 MEDLINE on STN DUPLICATE 9
ACCESSION NUMBER: 2002675330 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12235142
TITLE: Interactions of STAT3 with caveolin-1 and heat shock protein 90 in plasma membrane raft and cytosolic complexes. Preservation of cytokine signaling during fever.
AUTHOR: Shah Mehul; Patel Kirit; Fried Victor A; Sehgal Pravin B
CORPORATE SOURCE: Department of Cell Biology and Anatomy, New York Medical College, Valhalla, New York 10595, USA.
CONTRACT NUMBER: CA-82647 (NCI)
SOURCE: The Journal of biological chemistry, (2002 Nov 22) Vol. 277, No. 47, pp. 45662-9. Electronic Publication: 2002-09-13.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200301
ENTRY DATE: Entered STN: 19 Nov 2002
Last Updated on STN: 8 Jan 2003
Entered Medline: 7 Jan 2003
AB Interleukin-6 (IL-6) initiates STAT3 signaling in plasma membrane rafts with the subsequent transit of Tyr-phosphorylated STAT3 (PY-STAT3) through the cytoplasmic compartment to the nucleus in association with accessory proteins. We initially identified caveolin-1 (cav-1) as a candidate STAT3-associated accessory protein due to its co-localization with STAT3 and PY-STAT3 in flotation raft fractions, and heat shock protein 90 (HSP90) due to its inclusion in cytosolic STAT3-containing 200-400-kDa complexes. Subsequent immunomagnetic bead pullout assays showed that STAT3, PY-STAT3, cav-1, and HSP90 interacted in plasma membrane and cytoplasmic complexes derived from uninduced and stimulated Hep3B cells. This was a general property of STAT3 in that these interactions were also observed in alveolar epithelial type II-like cells, lung fibroblasts, and pulmonary arterial endothelial cells. Exposure of Hep3B cells to the raft disrupter methyl-beta-cyclodextrin for

1-10 min followed by IL-6 stimulation for 15 min preferentially inhibited the appearance of PY-STAT3 in the cav-1-enriched sedimentable cytoplasmic fraction, suggesting that these complexes may represent a trafficking intermediate immediately downstream from the raft. Because IL-6 is known to function in the body in the context of fever, the possibility that HSP90 may help preserve IL-6-induced STAT3 signaling at elevated temperature was investigated. Geldanamycin, an HSP90 inhibitor, markedly inhibited IL-6-stimulated STAT3 signaling in Hep3B hepatocytes cultured overnight at 39.5 degrees C as evaluated by DNA-shift assays, trafficking of PY-STAT3 to the nucleus, cross-precipitation of HSP90 by anti-STAT3 polyclonal antibody, and reporter/luciferase construct experiments. Taken together, the data show that IL-6/raft/STAT3 signaling is a chaperoned pathway that involves cav-1 and HSP90 as accessory proteins and suggest a mechanism for the preservation of this signaling during fever.

L6 ANSWER 14 OF 62 MEDLINE on STN DUPLICATE 10
 ACCESSION NUMBER: 2002146215 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11879186
 TITLE: The beta-appendages of the four adaptor-protein (AP) complexes: structure and binding properties, and identification of sorting nexin 9 as an accessory protein to AP-2.
 AUTHOR: Lundmark Richard; Carlsson Sven R
 CORPORATE SOURCE: Department of Medical Biochemistry and Biophysics, Umea University, S-901 87 Umea, Sweden.
 SOURCE: The Biochemical journal, (2002 Mar 15) Vol. 362, No. Pt 3, pp. 597-607.
 Journal code: 2984726R. ISSN: 0264-6021.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200204
 ENTRY DATE: Entered STN: 7 Mar 2002
 Last Updated on STN: 20 Apr 2002
 Entered Medline: 19 Apr 2002
 AB Adaptor protein (AP) complexes are essential components for the formation of coated vesicles and the recognition of cargo proteins for intracellular transport. Each AP complex exposes two appendage domains with that function to bind regulatory accessory proteins in the cytosol. Secondary structure predictions, sequence alignments and CD spectroscopy were used to relate the beta-appendages of all human AP complexes to the previously published crystal structure of AP-2. The results suggested that the beta-appendages of AP-1, AP-2 and AP-3 have similar structures, consisting of two subdomains, whereas that of AP-4 lacks the inner subdomain. Pull-down and overlay assays showed partial overlap in the binding specificities of the beta-appendages of AP-1 and AP-2, whereas the corresponding domain of AP-3 displayed a unique binding pattern. That AP-4 may have a truncated, non-functional domain was indicated by its apparent inability to bind any proteins from cytosol. Of several novel beta-appendage-binding proteins detected, one that had affinity exclusively for AP-2 was identified as sorting nexin 9 (SNX9). SNX9, which contains a phox and an Src homology 3 domain, was found in large complexes and was at least partially associated with AP-2 in the cytosol. SNX9 may function to assist AP-2 in its role at the plasma membrane.

L6 ANSWER 15 OF 62 MEDLINE on STN DUPLICATE 11
 ACCESSION NUMBER: 2002317053 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12060494
 TITLE: Association of the chaperone glucose-regulated protein 58 (GRP58/ER-60/ERp57) with Stat3 in cytosol and plasma

membrane complexes.

AUTHOR: Guo Gary G; Patel Kirit; Kumar Vinita; Shah Mehul; Fried Victor A; Etlinger Joseph D; Sehgal Pravin B

CORPORATE SOURCE: Department of Cell Biology & Anatomy, New York Medical College, Valhalla, NY 10595, USA.

CONTRACT NUMBER: CA-82647 (NCI)

SOURCE: Journal of interferon & cytokine research : the official journal of the International Society for Interferon and Cytokine Research, (2002 May) Vol. 22, No. 5, pp. 555-63. Journal code: 9507088. ISSN: 1079-9907.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200212

ENTRY DATE: Entered STN: 13 Jun 2002
Last Updated on STN: 17 Dec 2002
Entered Medline: 4 Dec 2002

AB Glucose-regulated protein 58 (GRP58/ER-60/Erp57), best known as a chaperone in the endoplasmic reticulum lumen, was previously identified by us as one of several accessory proteins in the S100 cytosol fraction of human hepatoma Hep3B cells that was differentially coshifted by anti-Stat3 antibody in an antibody-subtracted differential protein display assay. In the present study, the association between GRP58 and Stat3 in different cytoplasmic compartments was evaluated using cross-immunoprecipitation and cell-fractionation techniques. In the S100 cytosol fraction, three different anti-GRP58 polyclonal antibodies (pAb) cross-immunoprecipitated Stat3 (but not Stat1), and, conversely, anti-Stat3 pAb cross-immunoprecipitated GRP58. Both cytosolic Stat3 and GRP58 eluted during Superose-6 gel-filtration chromatography in complexes of size 200-400 kDa (statosome I), and anti-Stat3 pAb cross-immunoprecipitated GRp58 from these FPLC elution fractions. Using differential sedimentation and density equilibrium flotation methods, Stat3 and GRP58 were observed to be coassociated with cytoplasmic membranes enriched for the plasma membrane marker 5' nucleotidase but not with those containing the endoplasmic reticulum marker BiP/GRP78. The Stat3 and GRP58-containing plasma membrane fraction also contained Stat1, Stat5b, and gp130. Stat activation by orthovanadate caused the accumulation of PY-Stat3 in the GRP58-containing plasma membrane fraction. However, this PY-Stat3 was DNA-binding deficient. Likewise, excess exogenous recombinant human GRP58 prepared using a baculovirus expression system preferentially inhibited Stat3 DNA-binding activity in the S100 cytosol, suggesting that GRP58 may sequester activated Stat3. The new data confirm the association between GRP58 and Stat3 in cytosolic 200-400-kDa statosome I complexes and show that both GRP58 and Stat family members coassociate in the plasma membrane compartment. We suggest that the chaperone GRP58 may regulate signaling by sequestering inactive and activated Stat3.

L6 ANSWER 16 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2002:463649 CAPLUS

DOCUMENT NUMBER: 137:293035

TITLE: Cytokine-induced STAT signalling through the cytoplasmic compartment

AUTHOR(S): Sehgal, Pravin B.

CORPORATE SOURCE: Departments of Cell Biology & Anatomy, and Medicine, New York Medical College, Valhalla, NY, USA

SOURCE: Advances in Experimental Medicine and Biology (2001), 495(Progress in Basic and Clinical Immunology), 161-168
CODEN: AEMBAP; ISSN: 0065-2598

PUBLISHER: Kluwer Academic/Plenum Publishers
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review and discussion of the issues surrounding the reliability of Superose-6 FPLC for estimating the size of STAT proteins, the anal. of cytosolic STAT protein complexes by two-dimensional PAGE, the extent of cytoplasm to nucleus translocation of STAT3 in response to IL-6, and the possible association of STAT3 with sedimentable cytoplasmic structures, including organelles. The bulk of the STAT proteins existed in the cytosolic compartment as high-mol. weight complexes in association with various accessory proteins. The "statosome" model of STAT signaling proposes that the signaling function of STAT proteins through the cytoplasmic compartment is regulated by these cytosolic accessory proteins. Association of STAT proteins with cytoplasmic organelles and with mediating organellar function is a novel possibility that deserves evaluation.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 17 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2001:131850 CAPLUS

DOCUMENT NUMBER: 135:89422

TITLE: Antibody and oligonucleotide probes to distinguish intracellular expression and localization patterns of Rab GDP-dissociation inhibitor isoforms

AUTHOR(S): Shisheva, Assia

CORPORATE SOURCE: Department of Physiology, Wayne State University
School of Medicine, Detroit, MI, 48201, USA

SOURCE: Methods in Enzymology (2001), 329(Regulators and Effectors of Small GTPases, Part E), 39-50
CODEN: MENZAU; ISSN: 0076-6879

PUBLISHER: Academic Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Among the number of accessory proteins required for Rab function, the GDP dissociation inhibitor (GDI) proteins have emerged as crucial for Rab progression through the membrane/cytosol localization cycle and recycling. A strategy that has been used to distinguish the endogenous expression and localization patterns of the GDI family members, is described. Methods used to express and purify GDI-2 and GDI β in bacterial hosts are also described. (c) 2001 Academic Press.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 18 OF 62 MEDLINE on STN DUPLICATE 12

ACCESSION NUMBER: 1999395117 MEDLINE

DOCUMENT NUMBER: PubMed ID: 10464281

TITLE: Cellular physiology of STAT3: Where's the cytoplasmic monomer?.

AUTHOR: Ndubuisi M I; Guo G G; Fried V A; Etlinger J D; Sehgal P B

CORPORATE SOURCE: Department of Cell Biology & Anatomy, New York Medical College, Valhalla, New York 10595, USA.

SOURCE: The Journal of biological chemistry, (1999 Sep 3) Vol. 274, No. 36, pp. 25499-509.
Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)

LANGUAGE: English

FILE SEGMENT: Priority Journals; Space Life Sciences

ENTRY MONTH: 199910

ENTRY DATE: Entered STN: 14 Oct 1999

Last Updated on STN: 14 Oct 1999

Entered Medline: 7 Oct 1999

AB In the standard model of cytokine-induced signal transducer and activator of transcription (STAT) protein family signaling to the cell nucleus, it is assumed that STAT3 is recruited to the cytoplasmic side of the cell surface receptor complex from within a cytosolic monomer pool. By using Superose-6 gel-filtration chromatography, we have discovered that there is little monomeric STAT3 (91 kDa) in the cytosol of liver cells (human hepatoma Hep3B cell line and rat liver). The bulk of STAT3 (and STAT1, STAT5a, and -b) was present in the cytosol as high molecular mass complexes in two broad distributions in the size range 200-400 kDa ("statosome I") and 1-2 MDa ("statosome II"). Upon treatment of Hep3B cells with interleukin-6 (IL-6) for 30 min (i) cytosolic tyrosine-phosphorylated STAT3 was found to be in complexes of size ranging from 200-400 kDa to 1-2 MDa; (ii) a small pool of monomeric STAT3 and tyrosine-phosphorylated STAT3 eluting at 80-100 kDa was observed, and (iii) most of the cytoplasmic DNA-binding competent STAT3 (the so-called SIF-A "homodimer") co-eluted with catalase at 230 kDa. In order to identify the protein components of the 200-400-kDa statosome I cytosolic complexes, we used the novel technique of antibody-subtracted differential protein display using anti-STAT3 antibody. Eight polypeptides in the size range from 20 to 114 kDa co-shifted with STAT3; three of these (p60, p20a, and p20b) were co-shifted in an IL-6-dependent manner. In-gel tryptic fragmentation and mass spectroscopy identified the major IL-6-dependent STAT3-co-shifted p60 protein as the chaperone GRP58/ER-60/ERp57. Taken together, these data (i) emphasize the absence of a detectable STAT3 monomer pool in the cytosol of cytokine-free liver cells as posited by the standard model, and (ii) suggest an alternative model for STAT signaling in which STAT3 proteins function in the cytoplasm as heteromeric complexes with accessory scaffolding proteins, including the chaperone GRP58.

L6 ANSWER 19 OF 62 MEDLINE on STN DUPLICATE 13
ACCESSION NUMBER: 2000049857 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10585162
TITLE: NADPH-diaphorase and cytosolic urea cycle enzymes
in the rat accessory olfactory bulb.
AUTHOR: Nakamura H; Itoh K; Kawabuchi M
CORPORATE SOURCE: Department of Anatomy, Gifu University School of Medicine,
Japan.. hiron@cc.gifu-u.ac.jp
SOURCE: Journal of chemical neuroanatomy, (1999 Oct) Vol. 17, No.
2, pp. 109-17.
Journal code: 8902615. ISSN: 0891-0618.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199912
ENTRY DATE: Entered STN: 13 Jan 2000
Last Updated on STN: 13 Jan 2000
Entered Medline: 15 Dec 1999

AB The nitric oxide cycle consists of nitric oxide synthase, argininosuccinate synthetase and argininosuccinate lyase to form nitric oxide. We have examined the colocalization of nitric oxide synthase and the cytosolic urea cycle enzymes (argininosuccinate synthetase, argininosuccinate lyase and arginase) in the accessory olfactory bulb of the rat by using a double labeling procedure combining reduced-nicotinamide-adenine-dinucleotide-phosphate-diaphorase (NADPH-d) reaction with fluorescent immunocytochemistry. Each glomerulus showed a different NADPH-d activity, and those with the strongest NADPH-d activities were assembled in the caudomedial part of the accessory olfactory bulb. Argininosuccinate synthetase-like immunoreactive glomeruli were distributed in the caudomedial part of the accessory

olfactory bulb, and most of them were also strongly NADPH-d positive. The mitral or tufted cells were argininosuccinate synthetase-, argininosuccinate lyase- and arginase-like immunoreactive, but were not NADPH-d positive. The granule cells were NADPH-d positive or argininosuccinate lyase-like immunoreactive, but were not argininosuccinate synthetase- or arginase-like immunoreactive. Some granule cells were both NADPH-d positive and argininosuccinate lyase-like immunoreactive. The results indicate the heterogeneity of glomeruli of the accessory olfactory bulb with respect to the distribution of these enzymes. The granule cells have nitric oxide synthase and argininosuccinate lyase, and thus may efficiently produce nitric oxide.

L6 ANSWER 20 OF 62 MEDLINE on STN DUPLICATE 14
 ACCESSION NUMBER: 1999286983 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10358931
 TITLE: FYVE finger proteins as effectors of phosphatidylinositol 3-phosphate.
 AUTHOR: Gaullier J M; Simonsen A; D'Arrigo A; Bremnes B; Stenmark H
 CORPORATE SOURCE: Department of Biochemistry, Norwegian Radium Hospital, Oslo, Norway.
 SOURCE: Chemistry and physics of lipids, (1999 Apr) Vol. 98, No. 1-2, pp. 87-94. Ref: 45
 Journal code: 0067206. ISSN: 0009-3084.
 PUB. COUNTRY: Ireland
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199906
 ENTRY DATE: Entered STN: 14 Jul 1999
 Last Updated on STN: 14 Jul 1999
 Entered Medline: 28 Jun 1999

AB Phosphatidylinositol 3-phosphate (PtdIns(3)P), generated via the phosphorylation of phosphatidylinositol by phosphatidylinositol 3-kinase (PI 3-kinase), plays an essential role in intracellular membrane traffic. The underlying mechanism is still not understood in detail, but the recent identification of the FYVE finger as a protein domain that binds specifically to PtdIns(3)P provides a number of potential effectors for PtdIns(3)P. The FYVE finger (named after the first letter of the four proteins containing it; Fablp, YOTB, Vac1p and EEA1) is a double-zinc binding domain that is conserved in more than 30 proteins from yeast to mammals. It is found in several proteins involved in intracellular traffic, and FYVE finger mutations that affect zinc binding are associated with the loss of function of several of these proteins. The interaction of FYVE fingers with PtdIns(3)P may serve three alternative functions: First, to recruit cytosolic FYVE finger proteins to PtdIns(3)P-containing membranes (in concert with accessory molecules); second, to enrich for membrane bound FYVE finger proteins into PtdIns(3)P containing microdomains within the membrane; and third, to modulate the activity of membrane bound FYVE finger proteins.

L6 ANSWER 21 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1998:732378 CAPLUS
 DOCUMENT NUMBER: 130:47650
 TITLE: Estrogen Receptor α Requires No Accessory Factors for High-Affinity Binding to a Consensus Response Element
 AUTHOR(S): Anderson, Iain; Bartley, Christopher R.; Lerch, Robert A.; Gray, Wesley G. N.; Friesen, Paul D.; Gorski, Jack
 CORPORATE SOURCE: Department of Biochemistry, University of Wisconsin-Madison, Madison, WI, 53706, USA
 SOURCE: Biochemistry (1998), 37(49), 17287-17298

CODEN: BICHAW; ISSN: 0006-2960
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Estrogen receptor (ER) α is commonly thought to bind to a consensus estrogen response element (ERE) as a homodimer, but previous expts. have not ruled out the presence of other proteins in the ER α /ERE complex. To characterize this interaction in more detail, we overexpressed mouse (m) ER α in a baculovirus system, using the selective advantage of the apoptosis inhibitor p35. Recombinant mER α possesses the predicted mol. weight and binds 17 β -estradiol and an oligonucleotide containing a consensus vitellogenin ERE with high affinity. Over a wide concentration range of mER α protein (0.1-50 nM), only one complex was detected between mER α and vitellogenin ERE in gel shift assays. The ratio of E2:vitellogenin ERE bound by mER α was close to 2:1, and each complex contained only one ERE. The mol. weight of the complex was determined to be 160,000, very close to that predicted for two mER α proteins and one ERE oligonucleotide, therefore providing strong evidence that no other proteins were present. Recombinant mER α was purified such that it was the only protein observable by silver stain. Purified mER α and mER α in a nuclear extract behaved identically in Ferguson anal., providing more evidence that only mER α was binding to the ERE. Purified mER α bound vitellogenin ERE with high affinity (Kd = 0.92 nM), indicating that no other proteins are necessary for high-affinity mER α interaction with a consensus ERE. To determine whether ER α in an estrogen-responsive mammalian tissue behaves the same as the overexpressed mER α , we tested rat uterine cytosol by Ferguson anal. ER α in rat uterine cytosol behaved identically to overexpressed mER α , suggesting that ER α in the uterine extract also binds to DNA predominantly as a homodimer with no addnl. proteins.
REFERENCE COUNT: 66 THERE ARE 66 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 22 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1998:174492 CAPLUS
DOCUMENT NUMBER: 128:291240
TITLE: Superoxide anion radical-triggered Ca²⁺ release from cardiac sarcoplasmic reticulum through ryanodine receptor Ca²⁺ channel
AUTHOR(S): Kawakami, Midori; Okabe, Eiichiro
CORPORATE SOURCE: Department of Pharmacology and ESR Laboratory, Kanagawa Dental College, Kanagawa, 238, Japan
SOURCE: Molecular Pharmacology (1998), 53(3), 497-503
CODEN: MOPMA3; ISSN: 0026-895X
PUBLISHER: Williams & Wilkins
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The ryanodine receptor Ca²⁺ channel (RyRC) constitutes the Ca²⁺-release pathway in sarcoplasmic reticulum (SR) of cardiac muscle. A direct mech. and a Ca²⁺-triggered mechanism (Ca²⁺-induced Ca²⁺ release) have been proposed to explain the in situ activation of Ca²⁺ release in cardiac muscle. We confirmed that superoxide anion radical-generated from hypoxanthine-xanthine oxidase reaction decreases calmodulin content and increases 45Ca²⁺ efflux from the heavy fraction of canine cardiac SR vesicles; hypoxanthine-xanthine oxidase also decreases Ca²⁺ free within the intravesicular space of the SR with no effect on Ca²⁺-ATPase activity. Current fluctuations through single Ca²⁺-release channels have been monitored after incorporation into planar phospholipid bilayers. We demonstrate that activation of the channel by superoxide anion radical is dependent of the presence of calmodulin and identified calmodulin as a functional mediator of superoxide anion radical-triggered Ca²⁺ release through the RyRC. For the first time, we show that superoxide anion radical stimulates Ca²⁺ release from heavy SR vesicles and suggest the

importance of accessory proteins such as calmodulin in modulating the effect of superoxide anion radical; the decreased calmodulin content induced by oxygen-derived free radicals, especially superoxide anion radical is a likely mechanism of accumulation of cytosolic Ca²⁺ (due to increased Ca²⁺ release from SR) after reperfusion of the ischemic heart.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 23 OF 62 MEDLINE on STN DUPLICATE 15
ACCESSION NUMBER: 1999057636 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9838027
TITLE: Inositol trisphosphate receptors: Ca²⁺-modulated intracellular Ca²⁺ channels.
AUTHOR: Taylor C W
CORPORATE SOURCE: Department of Pharmacology, Tennis Court Road, Cambridge CB2 1QJ, UK.. cwt1000@cam.ac.uk
SOURCE: Biochimica et biophysica acta, (1998 Dec 8) Vol. 1436, No. 1-2, pp. 19-33. Ref: 162
Journal code: 0217513. ISSN: 0006-3002.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199901
ENTRY DATE: Entered STN: 9 Feb 1999
Last Updated on STN: 9 Feb 1999
Entered Medline: 27 Jan 1999

AB The three subtypes of inositol trisphosphate (InsP3) receptor expressed in mammalian cells are each capable of forming intracellular Ca²⁺ channels that are regulated by both InsP3 and cytosolic Ca²⁺. The InsP3 receptors of many, though perhaps not all, tissues are biphasically regulated by cytosolic Ca²⁺: a rapid stimulation of the receptors by modest increases in Ca²⁺ concentration is followed by a slower inhibition at higher Ca²⁺ concentrations. Despite the widespread occurrence of this form of regulation and the belief that it is an important element of the mechanisms responsible for the complex Ca²⁺ signals evoked by physiological stimuli, the underlying mechanisms are not understood. Both accessory proteins and Ca²⁺-binding sites on InsP3 receptors themselves have been proposed to mediate the effects of cytosolic Ca²⁺ on InsP3 receptor function, but the evidence is equivocal. The effects of cytosolic Ca²⁺ on InsP3 binding and channel opening, and the possible means whereby the effects are mediated are discussed in this review.

L6 ANSWER 24 OF 62 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 97160559 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9006893
TITLE: A 16-kDa protein functions as a new regulatory protein for Hsc70 molecular chaperone and is identified as a member of the Nm23/nucleoside diphosphate kinase family.
AUTHOR: Leung S M; Hightower L E
CORPORATE SOURCE: Department of Molecular and Cell Biology, University of Connecticut, Storrs, Connecticut 06269-3044, USA.
SOURCE: The Journal of biological chemistry, (1997 Jan 31) Vol. 272, No. 5, pp. 2607-14.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 199703
ENTRY DATE: Entered STN: 21 Mar 1997
Last Updated on STN: 6 Feb 1998
Entered Medline: 13 Mar 1997

AB Cytoplasmic Hsc70 is a multifunctional molecular chaperone. It is hypothesized that accessory proteins are used to specify the diverse chaperone activities of Hsc70. A 16-kDa cytosolic protein (p16) co-purified with Hsc70 obtained from a fish hepatocyte cell line, PLHC-1. Hsc70 also co-immunoprecipitated with p16 from PLHC-1 cells and fish liver. p16 was identified as a member of the Nm23/nucleoside diphosphate (NDP) kinase family based on its amino acid sequence similarity, NDP kinase activity, and recognition by anti-human NDP kinase-A antibody. This antibody also co-immunoprecipitated Hsc70 and NDP kinase from human HepG2 cells. p16 monomerized Hsc70 and released Hsc70 from pigeon cytochrome c peptide (Pc) but not from FYQLALT, a peptide specifically designed for high affinity binding. Therefore, p16 may modulate Hsc70 function by maintaining Hsc70 in a monomeric state and by dissociating unfolded proteins from Hsc70 either through protein-protein interactions or by supplying ATP indirectly through phosphate transfer. p16 did not affect basal or unfolded protein-stimulated ATPase activity of bovine brain Hsc70 using in vitro assays. Interestingly, bovine liver NDP kinase did not dissociate the Hsc70.Pc complex. In addition, two nonconservative amino acid substitutions were found near the amino terminus of p16. Therefore, p16 may be a unique Nm23/NDP kinase that functions as an accessory protein for cytosolic Hsc70 in eukaryotes.

L6 ANSWER 25 OF 62 MEDLINE on STN DUPLICATE 17
ACCESSION NUMBER: 97226660 MEDLINE
DOCUMENT NUMBER: PubMed ID: 9091322
TITLE: At-GDI1 from Arabidopsis thaliana encodes a rab-specific GDP dissociation inhibitor that complements the sec19 mutation of Saccharomyces cerevisiae.
AUTHOR: Zarsky V; Cvrckova F; Bischoff F; Palme K
CORPORATE SOURCE: Institute of Experimental Botany, Academy of Sciences, Prague, Czech Republic.. zarsky@site.cas.cz
SOURCE: FEBS letters, (1997 Feb 24) Vol. 403, No. 3, pp. 303-8. Journal code: 0155157. ISSN: 0014-5793.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-D13988; GENBANK-D45021; GENBANK-D90103;
GENBANK-L03209; GENBANK-S62371; GENBANK-U00002;
GENBANK-U62866; GENBANK-X74401; GENBANK-X74402;
GENBANK-Y07961
ENTRY MONTH: 199704
ENTRY DATE: Entered STN: 22 Apr 1997
Last Updated on STN: 3 Mar 2000
Entered Medline: 10 Apr 1997

AB Rab GTPases play a central role in the control of vesicular membrane traffic. These proteins cycle between cytosolic and membrane-bound compartments in a guanine nucleotide-dependent manner, a process that is regulated by several accessory proteins. Of particular interest are the Rab guanosine nucleotide diphosphate dissociation inhibitor proteins (Rab-GDI) which bind to prenylated Rab GTPases, slow the rate of GDP dissociation and escort GDP bound Rab proteins to their target membranes and retrieve them after completion of their catalytic cycle. We have cloned from Arabidopsis thaliana a cDNA coding for the Rab guanosine diphosphate dissociation inhibitor (AtGDI1) by functional complementation of the Saccharomyces cerevisiae sec19-1 mutant. The Arabidopsis cDNA potentially encodes a 49850 Da protein which

is homologous to yeast GDI (49%) and to other members of the Rab-GDI family (49-63%). Northern blot analysis indicates that the mRNA is expressed in all tissues examined. The existence of a plant homologue of the Rab-GDI family indicates that the basic vesicle traffic control machinery may be highly conserved in plants as it is in yeast and mammals.

L6 ANSWER 26 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1998:550297 CAPLUS

DOCUMENT NUMBER: 129:272757

TITLE: The phycobiliproteins within the cyanoplasts of *Cyanophora paradoxa* store carbon, nitrogen, and sulfur for the whole cell

AUTHOR(S): Mueller, N. E.; Hauler, O.; Schenk, H. E. A.

CORPORATE SOURCE: Botanical Institute, University of Tuebingen, Tuebingen, 72076, Germany

SOURCE: Eukaryotism and Symbiosis: Intertaxonic Combination versus Symbiotic Adaptation, [Proceedings of the International Colloquium on Endocytobiology and Symbiosis], 6th, Tuebingen, Sept. 6-10, 1995 (1997), Meeting Date 1995, 252-260. Editor(s): Schenk, Hainfried E. A. Springer: Berlin, Germany.
CODEN: 66NRAU

DOCUMENT TYPE: Conference

LANGUAGE: English

AB *Cyanophora paradoxa*, a protist and descendant of a cyanome, harbors photosynthetic active murein-enveloped cyanoplasts. Under normal culture conditions it preferentially uses cyanoplast located accessory phycobiliproteins for storage of assimilated carbon, instead of a starch pool located in its cytosol. However, during incipient nitrogen starvation, the direction of carbon flux in the cell changes: the assimilated photosynthetic carbon now becomes increasingly incorporated into the cytosolic starch, whereas phycobiliproteins are degraded. Sulfur deficiency shows a similar influence on carbon flux and biodegradation of phycobiliproteins. A model calculation prompts the assumption that assimilated nitrogen goes through an intracellular pool of metabolites with regulating properties (probably amino acids) before it is stored in the phycobiliproteins.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 27 OF 62 MEDLINE on STN DUPLICATE 18

ACCESSION NUMBER: 96415591 MEDLINE

DOCUMENT NUMBER: PubMed ID: 8793993

TITLE: Activation of B lymphocytes: integrating signals from CD19, CD22 and Fc gamma RIIB1.

AUTHOR: Doody G M; Dempsey P W; Fearon D T

CORPORATE SOURCE: Wellcome Trust Immunology Unit, University of Cambridge, School of Clinical Medicine, UK.

SOURCE: Current opinion in immunology, (1996 Jun) Vol. 8, No. 3, pp. 378-82. Ref: 47
Journal code: 8900118. ISSN: 0952-7915.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199701

ENTRY DATE: Entered STN: 19 Feb 1997

Last Updated on STN: 19 Feb 1997

Entered Medline: 31 Jan 1997

AB Three accessory membrane proteins, CD19, CD22 and Fc gamma RIIB1, alter signaling through membrane immunoglobulin of B cells by binding cytosolic proteins containing SH2 domains. Recent

biochemical and genetic studies have shown that these receptors enable B cells to amplify responses to certain T-cell-dependent antigens (CD19), to restrict their response to T-cell zones of secondary lymphoid organs (CD22), and to dampen their response to antigens for which IgG is already available (Fc gamma RIIb1).

L6 ANSWER 28 OF 62 MEDLINE on STN DUPLICATE 19
ACCESSION NUMBER: 95115139 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7815553
TITLE: Deletions in one domain of the Friend virus-encoded membrane glycoprotein overcome host range restrictions for erythroleukemia.
AUTHOR: Hoatlin M E; Ferro F E Jr; Geib R W; Fox M T; Kozak S L; Kabat D
CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, Oregon Health Sciences University, Portland 97201-3098.
CONTRACT NUMBER: CA47944 (NCI)
CA5419 (NCI)
SOURCE: Journal of virology, (1995 Feb) Vol. 69, No. 2, pp. 856-63.
Journal code: 0113724. ISSN: 0022-538X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals; AIDS
ENTRY MONTH: 199502
ENTRY DATE: Entered STN: 17 Feb 1995
Last Updated on STN: 3 Feb 1997
Entered Medline: 9 Feb 1995

AB Although the Friend virus-encoded membrane glycoprotein (gp55) activates erythropoietin receptors (EpoR) to cause erythroblastosis only in certain inbred strains of mice but not in other species, mutant viruses can overcome aspects of mouse resistance. Thus, mice homozygous for the resistance allele of the Fv-2 gene are unaffected by gp55 but are susceptible to mutant glycoproteins that have partial deletions in their ecotropic domains. These and other results have suggested that proteins coded for by polymorphic Fv-2 alleles might directly or indirectly interact with EpoR and that changes in gp55 can overcome this defense. A new viral mutant with an exceptionally large deletion in its ecotropic domain is now also shown to overcome Fv-2rr resistance. In all cases, the glycoproteins that activate EpoR are processed to cell surfaces as disulfide-bonded dimers. To initiate analysis of nonmurine resistances, we expressed human EpoR and mouse EpoR in the interleukin 3-dependent mouse cell line BaF3 and compared the abilities of Friend virus-encoded glycoproteins to convert these cells to growth factor independence. Human EpoR was activated in these cells by erythropoietin but was resistant to gp55. However, human EpoR was efficiently activated in these cells by the same viral mutants that overcome Fv-2rr resistance in mice. By construction and analysis of human-mouse EpoR chimeras, we obtained evidence that the cytosolic domain of human EpoR contributes to its resistance to gp55 and that this resistance is mediated by accessory cellular factors. Aspects of host resistance in both murine and nonmurine species are targeted specifically against the ecotropic domain of gp55.

L6 ANSWER 29 OF 62 MEDLINE on STN DUPLICATE 20
ACCESSION NUMBER: 94240162 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8183936
TITLE: Costimulatory signals for human T-cell activation induce nuclear translocation of ppl9/cofilin.
AUTHOR: Samstag Y; Eckerskorn C; Wesselborg S; Henning S; Wallich R; Meuer S C
CORPORATE SOURCE: German Cancer Research Center, Heidelberg.

SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1994 May 10) Vol. 91, No. 10, pp. 4494-8.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: (COMPARATIVE STUDY)
Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199406
ENTRY DATE: Entered STN: 21 Jun 1994
Last Updated on STN: 3 Feb 1997
Entered Medline: 16 Jun 1994

AB Resting T lymphocytes that have recognized antigen bound to a major histocompatibility complex molecule with the T-cell receptor require costimulatory signals through accessory receptors, including CD2, CD4, CD8, and CD28, for their clonal growth and expression of their functional repertoires. Absence of costimulation, in contrast, can induce clonal anergy in vitro and selective tolerance in vivo. Here we have defined a potential intracellular messenger for T-cell activation which is strictly regulated by costimulatory signals mediated through accessory receptors: pp19/cofilin, a small actin-binding protein, undergoes dephosphorylation and subsequent translocation from the cytosol into the nucleus. In untransformed T cells this process correlates with functional responses essential for the induction of T-cell proliferation (i.e., production of interleukin 2). Moreover, spontaneous dephosphorylation as well as nuclear translocation of pp19/cofilin occur in the autonomously proliferating T-lymphoma cell line Jurkat.

L6 ANSWER 30 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1994:504507 CAPLUS
DOCUMENT NUMBER: 121:104507
TITLE: A high affinity, juvenile hormone-binding protein in the long hyaline tubules of male *Melanoplus sanguinipes*
AUTHOR(S): Ismail, S. M.; Gillott, C.
CORPORATE SOURCE: Dep. Biology, Univ. Saskatchewan, Saskatoon, SK, S7N 0W0, Can.
SOURCE: Insect Biochemistry and Molecular Biology (1994), 24(7), 739-45
CODEN: IBMBES; ISSN: 0965-1748
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The authors have examined the juvenile hormone (JH)-binding capacity of the long hyaline tubules (LHT) in the accessory gland complex of male *M. sanguinipes*. Saturation studies followed by Scatchard anal. indicate that the LHT cytosol contains a single, high-affinity, JH-binding protein ($K_d = 8.7$ nM; $B_{max} = 2.7$ pmol/mg). The protein preferentially binds JH III over JH I. Photoaffinity labeling, using [3H]epoxyfarnesyl diazoacetate, together with SDS-PAGE, Western blotting and fluorog., have confirmed that a 40-kDa protein is the sole JH-binding protein in the cytosol. Its high affinity, saturability, and ligand specificity suggest that this mol. may be an intracellular receptor for JH in the LHT.

L6 ANSWER 31 OF 62 MEDLINE on STN

ACCESSION NUMBER: 94137986 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8305676
TITLE: Structural diversity of eukaryotic protein tyrosine phosphatases: functional and evolutionary implications.
AUTHOR: Saito H
CORPORATE SOURCE: Division of Tumor Immunology, Dana-Farber Cancer Institute, Boston, MA.

CONTRACT NUMBER: CA51132 (NCI)
SOURCE: Seminars in cell biology, (1993 Dec) Vol. 4, No. 6, pp. 379-87. Ref: 44
Journal code: 9007587. ISSN: 1043-4682.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199403
ENTRY DATE: Entered STN: 30 Mar 1994
Last Updated on STN: 30 Mar 1994
Entered Medline: 15 Mar 1994

AB In the past few years, very rapid advances have been made in determining the primary structure of protein tyrosine phosphatases (PTPases). PTPase genes have now been isolated from bacteria, viruses, yeasts and insects as well as vertebrates. The cytosolic PTPases have a catalytic domain associated with various accessory domains that are believed to be involved in protein-protein interaction or subcellular localization. The transmembrane PTPases have either one or two cytoplasmic PTPase domains and an extracellular receptor-like structure. The existence of a large number of structurally diverse PTPases suggests that they play specific and crucial roles in signal transduction. In this article, the structural features of the PTPases from higher eukaryotes are reviewed.

L6 ANSWER 32 OF 62 MEDLINE on STN DUPLICATE 21
ACCESSION NUMBER: 93352077 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8349284
TITLE: Effects of progesterone and dihydrotestosterone on stimulation of androgen-dependent sex behavior, accessory sex structures, and in vitro binding characteristics of cytosolic androgen receptors in male whiptail lizards (Cnemidophorus inornatus).
AUTHOR: Lindzey J; Crews D
CORPORATE SOURCE: Department of Zoology, University of Texas, Austin 78712.
CONTRACT NUMBER: NIMH 00135 (NIMH)
NIMH 41770 (NIMH)
NIMH MH 18837 (NIMH)
SOURCE: Hormones and behavior, (1993 Jun) Vol. 27, No. 2, pp. 269-81.
Journal code: 0217764. ISSN: 0018-506X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ENTRY DATE: Entered STN: 1 Oct 1993
Last Updated on STN: 29 Jan 1996
Entered Medline: 16 Sep 1993

AB Progestins often act as potent antiandrogens in male birds and mammals. Experiments with lizards find that progestins can both inhibit (when given in high dosages) or stimulate (when given in low dosages) male-typical sex behavior in gonadectomized individuals. This study shows that in the little striped whiptail lizard exogenous progesterone (P) facilitates androgen-dependent sex behaviors in males yet fails to stimulate seasonal activation of androgen-dependent accessory sex structures. Analysis of androgen receptors (AR) in brain and kidney cytosol of the little striped whiptail lizard reveals similarities with the AR of the mouse. The data indicate that despite the ability of P to mimic the actions of androgens in activating sex behaviors in males of this species, the characteristics

of the AR are conserved with respect to other vertebrate species.

L6 ANSWER 33 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1993:1017 CAPLUS

DOCUMENT NUMBER: 118:1017

TITLE: Intrauterine position effects on steroid metabolism and steroid receptors of reproductive organs in male mice

AUTHOR(S): Nonneman, D. J.; Ganjam, V. K.; Welshons, W. V.; Vom Saal, F. S.

CORPORATE SOURCE: Coll. Vet. Med., Univ. Missouri, Columbia, MO, 65211, USA

SOURCE: Biology of Reproduction (1992), 47(5), 723-9
CODEN: BIREBV; ISSN: 0006-3363

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Mice differ in their adult reproductive characteristics as a function of whether they developed in utero between two male fetuses (2M males), which have higher testosterone levels, or between two female fetuses (0M males), which have higher estradiol levels. The present study was designed to further characterize biochem. parameters of 2M and 0M adult male mice. Activities of testicular steroidogenic enzymes, namely $\Delta 5-3\beta$ -hydroxysteroid dehydrogenase/isomerase, 17α -hydroxylase, and $C17,20$ -lyase ($C21SCC$ P 450), were measured by means of radiometric assays and HPLC fractionation of substrate and products. Activity of 5α -reductase in both seminal vesicle and prostate was measured by similar techniques. Estrogen and androgen receptor concns., which indicate capacity to respond to steroid hormones, were also examined in the accessory sex organs. For both seminal vesicle and prostate, 5α -reductase activities were approx. 60% greater in 2M males than in 0M males, indicating greater capacity to form dihydrotestosterone from testosterone in organs from 2M mice. No significant differences were found in testicular steroidogenic enzymes between 2M and 0M animals, whereas the trend for all three activities was higher for 2M males than for 0M males. While no differences were found in estrogen receptor concns., 0M prostates had three times the concentration of androgen receptors (occupied receptors) compared to 2M prostates. Thus, intrauterine fetal position exerts a significant influence on subsequent adult androgen metabolism and androgen responsiveness in reproductive organs of adult male mice.

L6 ANSWER 34 OF 62 MEDLINE on STN

DUPLICATE 22

ACCESSION NUMBER: 93016253 MEDLINE

DOCUMENT NUMBER: PubMed ID: 1400582

TITLE: Kinesin is bound with high affinity to squid axon organelles that move to the plus-end of microtubules.

AUTHOR: Schnapp B J; Reese T S; Bechtold R

CORPORATE SOURCE: Department of Physiology, Boston University Medical School, Massachusetts 02118.

CONTRACT NUMBER: NS26846 (NINDS)

SOURCE: The Journal of cell biology, (1992 Oct) Vol. 119, No. 2, pp. 389-99.

Journal code: 0375356. ISSN: 0021-9525.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199211

ENTRY DATE: Entered STN: 22 Jan 1993

Last Updated on STN: 22 Jan 1993

Entered Medline: 19 Nov 1992

AB This paper addresses the question of whether microtubule-directed transport of vesicular organelles depends on the presence of a pool of cytosolic factors, including soluble motor proteins and accessory factors. Earlier studies with squid axon organelles (Schroer et al., 1988) suggested that the presence of cytosol induces a > 20-fold increase in the number of organelles moving per unit time on microtubules in vitro. These earlier studies, however, did not consider that cytosol might nonspecifically increase the numbers of moving organelles, i.e., by blocking adsorption of organelles to the coverglass. Here we report that treatment of the coverglass with casein, in the absence of cytosol, blocks adsorption of organelles to the coverglass and results in vigorous movement of vesicular organelles in the complete absence of soluble proteins. This technical improvement makes it possible, for the first time, to perform quantitative studies of organelle movement in the absence of cytosol. These new studies show that organelle movement activity (numbers of moving organelles/min/micron microtubule) of unextracted organelles is not increased by cytosol. Unextracted organelles move in single directions, approximately two thirds toward the plus-end and one third toward the minus-end of microtubules. Extraction of organelles with 600 mM KI completely inhibits minus-end, but not plus-end directed organelle movement. Upon addition of cytosol, minus-end directed movement of KI organelles is restored, while plus--end directed movement is unaffected. Biochemical studies indicate that KI-extracted organelles attach to microtubules in the presence of AMP-PNP and copurify with tightly bound kinesin. The bound kinesin is not extracted from organelles by 1 M KI, 1 M NaCl or carbonate (pH 11.3). These results suggest that kinesin is irreversibly bound to organelles that move to the plus-end of microtubules and that the presence of soluble kinesin and accessory factors is not required for movement of plus-end organelles in squid axons.

L6 ANSWER 35 OF 62 MEDLINE on STN DUPLICATE 23
 ACCESSION NUMBER: 92240647 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 1571949
 TITLE: Effect of male accessory glands autoaggression on androgenic cytosolic and nuclear receptors of rat prostate.
 AUTHOR: Diserio G P; Carrizo A E; Pacheco-Rupil B; Nowotny E
 CORPORATE SOURCE: Departamento de Bioquimica Clinica, Facultad de Ciencias Quimicas, Universidad Nacional de Cordoba, Republica Argentina.
 SOURCE: Cellular and molecular biology, (1992 Apr) Vol. 38, No. 2, pp. 201-7.
 Journal code: 7801029. ISSN: 0145-5680.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199206
 ENTRY DATE: Entered STN: 19 Jun 1992
 Last Updated on STN: 19 Jun 1992
 Entered Medline: 4 Jun 1992

AB The effect of immunization against male accessory gland (MAG) homogenates over androgenic cytosolic and nuclear receptors of rat prostate was studied. In the MAG-immunized rats the Bmax of cytosolic receptors was significantly increased (120.3 +/- 44.3 vs 47.7 +/- 24.9 fmol/mg protein, p less than 0.01, mean +/- SD). In contrast, the Bmax of nuclear receptors in the MAG-immunized rats showed no significant difference as regarded controls (kidney immunized rats) when expressed as fmol/100 micrograms DNA (196.1 +/- 84.8 vs 148.3 +/- 88.9) but it show to slight differences (p less than 0.1) when data were reported as percent of weight of tissue (2,189 +/- 918.6 vs 1,303 +/- 611.2 fmol/g wet issue).

Results (mean +/- SD) on binding affinity of cytosolic receptors showed no significant differences in MAG-immunized rats as compared with controls (Kd: 1.98 +/- 0.66 vs 1.92 +/- 0.20 nM). Likewise, only a slight difference between both groups was attained for Kds of nuclear receptors (2.34 +/- 0.28 vs 1.80 +/- 0.62 nM, p less than 0.2). On the other hand, 5 alpha 1-dihydrotestosterone (DHT) values obtained in prostate homogenates were significantly decreased in MAG-immunized rats as compared with controls (17.4 +/- 2.0 vs 7.1 +/- 0.9 ng/g tissue, mean +/- SD, p less than 0.01). However, testosterone (T) levels in gland tissue showed no significant differences between both groups (2.4 +/- 0.5 vs 2.6 +/- 0.3 ng/g tissue) with an increase in the T: DHT ratio from 0.14 to 0.37. (ABSTRACT TRUNCATED AT 250 WORDS)

L6 ANSWER 36 OF 62 MEDLINE on STN DUPLICATE 24
 ACCESSION NUMBER: 90130431 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 2105312
 TITLE: Evidence for a juvenile hormone receptor involved in protein synthesis in *Drosophila melanogaster*.
 AUTHOR: Shemshedini L; Lanoue M; Wilson T G
 CORPORATE SOURCE: Department of Zoology, University of Vermont, Burlington 05405.
 SOURCE: The Journal of biological chemistry, (1990 Feb 5) Vol. 265, No. 4, pp. 1913-8.
 Journal code: 2985121R. ISSN: 0021-9258.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 199003
 ENTRY DATE: Entered STN: 28 Mar 1990
 Last Updated on STN: 3 Feb 1997
 Entered Medline: 7 Mar 1990

AB The larval fat body of newly eclosed adults of *Drosophila melanogaster* was found to contain a single major binding protein specific for juvenile hormone (JH). Binding to this protein was saturable, of high affinity, and specific for JH III. The protein has a subunit molecular weight (Mr) of 85,000, as determined by photoaffinity labeling. The same or similar JH-binding protein was found in larval fat body and cuticle of third instar larvae and in male accessory glands and heads of newly eclosed adults. It was not found in several other tissues in adults. Male accessory gland cytosol from wild-type flies was found to contain a single binder with a dissociation constant (KD) of 6.7 nM for JH III; a binder in similar preparations from the methoprene-tolerant (Met) mutant had a KD value 6-fold higher. JH III stimulated protein synthesis in glands cultured in vitro, but this effect was reduced in Met flies as compared to wild-type flies, establishing a correlation between JH binding and biological activity of the hormone. In addition, glandular protein accumulation during the first 2 days of adult development was less in Met flies than in wild-type flies. These results strongly suggest that the binding protein we have identified mediates this JH effect in male accessory glands and thus is acting as a JH receptor.

L6 ANSWER 37 OF 62 MEDLINE on STN DUPLICATE 25
 ACCESSION NUMBER: 90353623 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 1696915
 TITLE: A study of the androgenic activity of anti-androgen.
 AUTHOR: Imai K; Watanabe K; Takahashi O; Shimizu N; Nakata S; Kawashima K; Suzuki T; Yamanaka H
 CORPORATE SOURCE: Department of Urology, Gunma University School of Medicine.
 SOURCE: Nippon Naibunpi Gakkai zasshi, (1990 Jun 20) Vol. 66, No. 6, pp. 597-606.
 Journal code: 0413717. ISSN: 0029-0661.
 PUB. COUNTRY: Japan

DOCUMENT TYPE: (ENGLISH ABSTRACT)
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199009
ENTRY DATE: Entered STN: 26 Oct 1990
Last Updated on STN: 29 Jan 1996
Entered Medline: 27 Sep 1990

AB To investigate the androgenic activity of steroidal and nonsteroidal anti-androgens, the effect of several compounds on some parameters as an androgenic activity was measured in the ventral prostate (VP) and seminal vesicle gland (SV) of castrated male rats. Ornithine decarboxylase (ODC) activity, arginase activity, androgen receptor (AR) in cytosol and nucleus, histological examination and weight of accessory sex organs were used as parameters for androgenic activity. The ventral prostate weight was increased by the administration of not only steroidal anti-androgen, medroxyprogesterone (MPA), chlormadinone acetate (CMA) and cyproterone acetate (CPA), but also estradiol-17 beta(E2) and nonsteroidal anti-androgen, AA 560. However flutamide (Flu) failed to increase VP weight. In SV, the tendency to increase weight by the administration of these compounds was also observed. However, it was not obvious as in VP. It was proven by the measurement of the parameters that all tested compounds except Flu had an androgenic activity. It seems that the androgenic activity was caused by a different mechanism because the parameter response to the administrated compounds was not identical.

L6 ANSWER 38 OF 62 MEDLINE on STN DUPLICATE 26
ACCESSION NUMBER: 89260300 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2724959
TITLE: Influence of neonatal diethylstilbestrol treatment on androgen and estrogen receptor levels in the mouse anterior prostate, ventral prostate and seminal vesicle.
AUTHOR: Turner T; Edery M; Mills K T; Bern H A
CORPORATE SOURCE: Department of Zoology, University of California, Berkeley 94720.
CONTRACT NUMBER: CA-05388 (NCI)
CA-09041 (NCI)
GM08730 (NIGMS)
SOURCE: Journal of steroid biochemistry, (1989 Apr) Vol. 32, No. 4, pp. 559-64.
Journal code: 0260125. ISSN: 0022-4731.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198907
ENTRY DATE: Entered STN: 6 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 12 Jul 1989

AB Perinatal exposure to the synthetic estrogen, diethylstilbestrol (DES), affects the structure of both male and female reproductive systems. Changes may also occur in the levels of steroid hormone receptors. Cytosolic and nuclear androgen and estrogen receptor levels (expressed per mg DNA) from the sex accessory glands of male BALB/c mice exposed neonatally to DES were analyzed by exchange assays. Neonatal DES exposure caused significant decreases in: (1) cytosolic androgen and cytosolic and nuclear estrogen receptor levels in the anterior prostate and (2) cytosolic estrogen receptor levels in the ventral prostate. A significant increase was seen in the cytosolic estrogen receptor levels in the seminal vesicle. Significant decreases in cytosolic protein levels occurred in all DES-exposed glands.

L6 ANSWER 39 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 1989:450659 CAPLUS

DOCUMENT NUMBER: 111:50659

TITLE: Age-related changes in the concentration of cytosolic androgen receptors in the epididymis, vas deferens and seminal vesicle of maturing male mice

AUTHOR(S): Gallon, C.; Veyssiere, G.; Berger, M.; Jean-Faucher, C.; De Turckheim, M.; Jean, C.

CORPORATE SOURCE: Univ. Blaise Pascal, Aubiere, 63177, Fr.

SOURCE: Journal of Andrology (1989), 10(3), 188-94

CODEN: JOAND3; ISSN: 0196-3635

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Changes in the number of androgen-binding sites that occur in cytosols of epididymis, vas deferens, and seminal vesicle of mice at 10-90 days of age are described. Specific saturable binding [³H]R-1881 by cytosols of the 3 organs at all time points studied and age-related differences in the number of binding sites measured were observed. Cytosolic androgen receptor levels in all 3 organs studied decreased with increasing age, regardless of whether the binding was expressed relative to weight of tissue, cytosolic protein, or cellular DNA. The most pronounced change in androgen receptor levels (from 442 to 50 fmol/mg protein) was observed in the epididymis between 10 and 30 days of age. In these 3 organs there was no correlation between androgen (testosterone + dihydrotestosterone) levels and the concentration of androgen-binding sites.

L6 ANSWER 40 OF 62 MEDLINE on STN

DUPLICATE 27

ACCESSION NUMBER: 88064224 MEDLINE

DOCUMENT NUMBER: PubMed ID: 3682813

TITLE: The heat-stable cytosolic factor that promotes glucocorticoid receptor binding to DNA is neither thioredoxin nor ribonuclease.

AUTHOR: Tienrungroj W; Pratt S E; Grippo J F; Holmgren A; Pratt W B

CORPORATE SOURCE: Department of Pharmacology, University of Michigan Medical School, Ann Arbor 48109-0010.

CONTRACT NUMBER: AM31573 (NIADDK)

SOURCE: Journal of steroid biochemistry, (1987 Nov) Vol. 28, No. 5, pp. 449-57.

Journal code: 0260125. ISSN: 0022-4731.

PUB. COUNTRY: ENGLAND: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

(RESEARCH SUPPORT, NON-U.S. GOV'T)

(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 198712

ENTRY DATE: Entered STN: 5 Mar 1990

Last Updated on STN: 3 Feb 1997

Entered Medline: 23 Dec 1987

AB Treatment of rat liver cytosol containing temperature-transformed [³H]dexamethasone-bound receptors at 0 degree C with the sulfhydryl modifying reagent methyl methanethiosulfonate (MTS) inhibits the DNA-binding activity of the receptor, and DNA-binding activity is restored after addition of dithiothreitol (DTT). However, transformed receptors that are treated with MTS and then separated from low Mr components of cytosol by passage through a column of Sephadex G-50 have very little DNA-binding activity when DTT is added to regenerate sulfhydryl moieties. The receptors will bind to DNA if whole liver cytosol or boiled liver cytosol is added in addition to DTT. The effect of boiled cytosol is mimicked by purified rat thioredoxin or bovine RNase A in a manner that does not reflect the reducing activity of the former or the catalytic activity of the latter. This suggests that the reported ability of each of these heat-stable peptides to stimulate DNA binding by glucocorticoid

receptors is not a biologically relevant action. We suggest that stimulation of DNA binding of partially purified receptors by boiled cytosol does not constitute a reconstitution of a complete cytosolic system in which the dissociated receptor must associate with a specific heat-stable accessory protein required for DNA binding, as has been suggested in the "two-step" model of receptor transformation recently proposed by Schmidt et al. (Schmidt T.J., Miller-Diener, A., Webb M.L. and Litwack G. (1985) J. biol. Chemical 260, 16255-16262).

L6 ANSWER 41 OF 62 MEDLINE on STN DUPLICATE 28
ACCESSION NUMBER: 87006424 MEDLINE
DOCUMENT NUMBER: PubMed ID: 2944809
TITLE: Imprinting of male sex tissues by neonatal endogenous androgens in mice. Molecular alterations following exposure to cyproterone acetate.
AUTHOR: Jean-Faucher C; Berger M; Gallon C; de Turckheim M; Veyssiere G; Jean C
SOURCE: Hormone research, (1986) Vol. 24, No. 1, pp. 38-45.
Journal code: 0366126. ISSN: 0301-0163.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198611
ENTRY DATE: Entered STN: 2 Mar 1990
Last Updated on STN: 2 Mar 1990
Entered Medline: 7 Nov 1986

AB This study was conducted to evaluate the growth and biochemical responsiveness of the epididymis, vas deferens and seminal vesicles of adult mice exposed to cyproterone acetate during the first 10 days of life. Results indicate that the weight and protein content of sex accessory organs were significantly depressed, testosterone and dihydrotestosterone concentrations were unaffected or increased, the number of cytosolic androgen-binding sites was slightly or significantly reduced. The efficiency of exogenous testosterone in promoting growth and protein synthesis in target organs of castrated adult males was significantly lowered by neonatal cyproterone acetate treatment. It is concluded that a deficient androgenic stimulation during neonatal life induces a limited response of sex target organs to endogenous or exogenous androgens in adulthood.

L6 ANSWER 42 OF 62 MEDLINE on STN DUPLICATE 29
ACCESSION NUMBER: 86145455 MEDLINE
DOCUMENT NUMBER: PubMed ID: 3912613
TITLE: Structural conversion of cytosolic steroid receptors by an age-dependent epididymal protease.
AUTHOR: Hendry W J 3rd; Danzo B J
CONTRACT NUMBER: HD05797 (NICHD)
HD08295 (NICHD)
SOURCE: Journal of steroid biochemistry, (1985 Dec) Vol. 23, No. 6A, pp. 883-93.
Journal code: 0260125. ISSN: 0022-4731.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198604
ENTRY DATE: Entered STN: 21 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 2 Apr 1986

AB Epididymides from sexually mature rabbits contain a factor that induces a discrete reduction in the sedimentation coefficient of cytosolic estrogen receptors from various tissues (rabbit epididymis and accessory sex organs; rabbit, rat and mouse uterus) and of cytosolic progesterone receptors from the rabbit uterus. The factor is not species-specific since a similar activity was detected in extracts of mature rat epididymides. Although present in cytosol, the factor is obtained in much higher yield in hypertonic extracts of the nucleomyofibrillar fraction of mature rabbit epididymal tissue. Using rabbit uterine estrogen receptor as substrate, we have determined the following details about the rabbit epididymal factor: (1) it is tissue-specific (undetectable in extracts from rabbit accessory sex organs, testis, uterus, liver, lung, kidney and intestine); (2) it is age-dependent (undetectable in extracts from sexually immature rabbit epididymides); (3) its maintenance is testis-independent following its post-pubertal induction or activation; (4) it is primarily localized in the caput region of the epididymis; (5) it is inactivated by elevated temperature; (6) it is macromolecular in nature; (7) it is DNase- and RNase-resistant; (8) it is irreversibly inactivated by leupeptin, indicating that it is a protease; and (9) it is effective on unoccupied and occupied receptors.

L6 ANSWER 43 OF 62 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 86096467 EMBASE

DOCUMENT NUMBER: 1986096467

TITLE: Structural conversion of cytosolic steroid receptors by an age-dependent epididymal protease.

AUTHOR: Hendry III W.J.; Danzo B.J.

CORPORATE SOURCE: Department of Biochemistry, Center for Reproductive Biology Research, Vanderbilt University School of Medicine, Nashville, TN 37232, United States

SOURCE: Journal of Steroid Biochemistry, (1985) Vol. 23, No. 6 A, pp. 883-893. .

CODEN: JSTBBK

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal

FILE SEGMENT: 029 Clinical Biochemistry
020 Gerontology and Geriatrics
037 Drug Literature Index
028 Urology and Nephrology

LANGUAGE: English

ENTRY DATE: Entered STN: 10 Dec 1991

Last Updated on STN: 10 Dec 1991

AB Epididymes from sexually mature rabbits contain a factor that induces a discrete reduction in the sedimentation coefficient of cytosolic estrogen receptors from various tissues (rabbit epididymis and accessory sex organs; rabbit, rat and mouse uterus) and of cytosolic progesterone receptors from the rabbit uterus. The factor is not species-specific since a similar activity was detected in extracts of mature rat epididymes. Although present in cytosol, the factor is obtained in much higher yield in hypertonic extracts of the nucleomyofibrillar fraction of mature rabbit epididymal tissue. Using rabbit uterine estrogen receptor as substrate, we have determined the following details about the rabbit epididymal factor: (1) it is tissue-specific (undetectable in extracts from rabbit accessory sex organs, testis, uterus, liver, lung, kidney and intestine); (2) it is age-dependent (undetectable in extracts from sexually immature rabbit epididymes); (3) its maintenance is testis-independent following its post-pubertal induction or activation; (4) it is primarily localized in the caput region of the epididymis; (5) it is activated by elevated temperature; (6) it is macromolecular in nature; (7) it is DNase- and RNase-resistant; (8) it is irreversibly inactivated by leupeptin,

indicating that it is a protease; and (9) it is effective on unoccupied and occupied receptors.

L6 ANSWER 44 OF 62 MEDLINE on STN DUPLICATE 30
ACCESSION NUMBER: 84158716 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6231189
TITLE: Direct mitogenic effect of ionophore A23187 on isolated human T helper lymphocytes.
AUTHOR: Akerman K E; Andersson L C
SOURCE: European journal of immunology, (1984 Mar) Vol. 14, No. 3, pp. 286-8.
Journal code: 1273201. ISSN: 0014-2980.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, NON-U.S. GOV'T)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198405
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 19 Mar 1990
Entered Medline: 4 May 1984

AB The Ca²⁺ ionophore A23187 induces only a weak mitogenic response in cultures of unfractionated mononuclear leukocytes from human blood. When a comitogen, 12-O-tetradecanoyl-phorbol-13-acetate, which by itself is nonmitogenic, is added, a greatly increased cell proliferation is obtained. Highly purified T lymphocytes respond by proliferation to A23187 alone. Studies on functional subsets of T cells, fractionated by using the monoclonal antibodies OKT4/OKT8, revealed that A23187 is a strong mitogen for pure T helper cells (T4+). This suggests that increased cytosolic Ca²⁺ directly triggers a proliferative response in T helper cells with no apparent need for accessory cells.

L6 ANSWER 45 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN
ACCESSION NUMBER: 1984:355748 BIOSIS
DOCUMENT NUMBER: PREV198478092228; BA78:92228
TITLE: SCANNING AND TRANSMISSION ELECTRON MICROSCOPY OF THE DEVELOPMENTAL STAGES OF THE FLOWER SHAPE SENSILLUM OF THE STONE-FLY NYMPH THAUMATOPERLA-ALPINA PLECOPTERA EUSTHENIIDAE.
AUTHOR(S): KAPOOR N N [Reprint author]; ZACHARIAH K
CORPORATE SOURCE: DEP BIOL, CONCORDIA UNIV, MONTREAL, QUEBEC, CANADA H3G 1M8
SOURCE: International Journal of Insect Morphology and Embryology, (1984) Vol. 13, No. 3, pp. 177-190.
CODEN: IJIMBQ. ISSN: 0020-7322.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB An EM study was made of the developmental stages of the flower-shape sensillum on the gills of stonefly nymph, *T. alpina*. The mature sensillum consists of a cylindrical base, a large dome resting on the base, and a striking palisade of up to 20 curved spines. It arises from an immature stage, consisting of a hemispherical base surmounted by a smaller knob. The morphogenetic changes which lead to the mature sensillum are: the production of the specialized cuticular roof of the dome from the knob; the growth of spines from the exocuticular part of the rim at the apex of the bulge; the growth of processes of the accessory or tormogen cell into the dome; the penetration of dendritic processes from a bipolar neuron through the cytosol of the accessory cell to the inner surface of the dome.

L6 ANSWER 46 OF 62 MEDLINE on STN DUPLICATE 31

ACCESSION NUMBER: 83238286 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6134721
TITLE: Somatostatin enhances binding of [3H]estradiol to a
cytosolic protein in rat pancreas. Possible role of
oligopeptide coligands in secretion.
AUTHOR: Band P; Richardson S B; Boctor A M; Grossman A
CONTRACT NUMBER: AM 20084 (NIADDK)
SOURCE: The Journal of biological chemistry, (1983 Jun 25) Vol.
258, No. 12, pp. 7284-7.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198308
ENTRY DATE: Entered STN: 19 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 11 Aug 1983

AB The cytosol fraction of rat pancreas can bind [3H] estradiol specifically and extensively. In contrast to the rat uterus, the binding protein in pancreas requires an accessory factor as a coligand in the steroid-binding reaction. Removal of this accessory factor by passage of the cytosol through CM Affi-Gel blue columns renders eluate fractions virtually incompetent with respect to binding of [3H]estradiol (10 nM). Certain synthetic oligopeptides such as N-benzoyl-L-argininyl-p-nitroanilide, as well as an endogenous accessory factor, can reactivate binding of [3H]estradiol. Thus, localization of the protein that binds [3H]estradiol following chromatography with CM Affi-Gel blue columns can be determined readily by assaying eluate fractions in the absence and presence of either accessory factor or N-benzoyl-L-argininyl-p-nitroanilide. Addition of somatostatin (tetradecapeptide referred to as SRIF14; somatotropin release inhibiting factor) to the activatable, but incompetent, eluate fractions, also enhanced binding of [3H]estradiol. The effect of SRIF14 was biphasic. The threshold concentration required for activation of [3H]estradiol binding was about 1 microM, and maximal stimulation occurred at 25 microM. At higher concentrations of SRIF14, binding declined and reached basal levels at about 75 microM. The concentrations of somatostatin required for activation of binding of [3H]estradiol in vivo may be lower than those indicated above since 1) preparations containing [3H]estradiol-binding protein also contained an SRIF14 peptidase. Following incubation of [125I-Tyr1]SRIF14 with these preparations there was loss of binding of radiolabeled peptide with SRIF14 antiserum. 2) The biphasic nature of SRIF14 activation may reflect feedback inhibition of [3H]estradiol binding by a degradation product of SRIF14. Since SRIF14 has been identified in the delta- (or D-) islet cells of the pancreas, and in concentrations that may be in the microM range, the possibility is raised that these cells serve a paracrine function with respect to acinar cell secretion.

L6 ANSWER 47 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN

ACCESSION NUMBER: 1984:238606 BIOSIS
DOCUMENT NUMBER: PREV198477071590; BA77:71590
TITLE: INCORPORATION OF SELENIUM-75 INTO SEMEN AND REPRODUCTIVE
TISSUES OF BULLS AND RAMS.
AUTHOR(S): POND F R [Reprint author]; TRIPP M J; WU A S H; WHANGER P
D; SCHMITZ J A
CORPORATE SOURCE: DEPARTMENT OF BIOLOGY, YANKTON COLLEGE, YANKTON, SOUTH
DAKOTA 57078, USA
SOURCE: Journal of Reproduction and Fertility, (1983) Vol. 69, No.
2, pp. 411-418.
CODEN: JRPFA4. ISSN: 0022-4251.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB After i.m. injections of 500 μ Ci ^{75}Se , semen was collected periodically over a 63-day period from a Se-deficient and a Se-injected ram, which were then killed for collection of the reproductive organs for the gel filtration studies. Testes, accessory glands and semen were also obtained from a bull injected i.v. with ^{75}Se . Gel filtration (Sephadex G 150) of ram testis cytosol resulted in 4 ^{75}Se peaks (Ve/Vo ratios of 1.1, 1.5, 2.3, 2.9). In the Se-injected ram the glutathione peroxidase (GSH-Px) peak (Ve/Vo 1.5) predominated, but, in the Se-deficient ram, radioactivity of the GSH-Px peak was less than that of the higher MW peak (Ve/Vo 1.1). Gel filtration chromatograms of bull testis cytosol yielded 5 ^{75}Se peaks (Ve/Vo 1.1, 1.5, 1.9, 2.4, 2.8). In chromatograms of ram seminal plasma on Sephacryl S-200 there were 2 major (Ve/Vo 1.4, 1.1) and 2 minor peaks (Ve/Vo 1.7, 2.4). ^{75}Se increased with time up to 49 days after injection in all peaks. ^{75}Se -labeled bull seminal plasma yielded 2 ^{75}Se peaks (Ve/Vo 1.1, 1.4) which corresponded to the major peaks of ram seminal plasma. Bull and ram seminal plasma GSH-Px activities per mg protien were comparable (28 and 29 nmol NADPHox/min, respectively), but, when expressed per ml seminal plasma, activity of the bull was more than 7 times the highest activity of ram seminal plasma (2908 and 385 nmol NADPHox/min, respectively). Seminal vesicles of the bull and rams, and the bull prostate gland possessed high GSH-Px activity, but bull and ram Cowper's glands had low GSH-Px activity.

L6 ANSWER 48 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
STN DUPLICATE 32

ACCESSION NUMBER: 1983:283089 BIOSIS
DOCUMENT NUMBER: PREV198376040581; BA76:40581
TITLE: SPECIFIC BINDING OF TRITIUM LABELED ESTRADIOL TO THE
CYTOSOL OF RAT PANCREAS ALTERATION OF THE APPARENT NUMBER
OF BINDING SITES BY AN ENDOGENOUS FACTOR AND OLIGO PEPTIDE
DERIVATIVES.
AUTHOR(S): BOCTOR A M [Reprint author]; BAND P; GROSSMAN A
CORPORATE SOURCE: DEP PHARMACOL, NY UNIV MED CENT, NEW YORK, NY 10016, USA
SOURCE: Journal of Steroid Biochemistry, (1983) Vol. 18, No. 3, pp.
245-252.
CODEN: JSTBBK. ISSN: 0022-4731.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The supernatant fraction of rat pancreas contains an estrogen-binding protein that differs in several ways from the one found in uterus: binding of $^{17}\beta$ -[3H]-estradiol in pancreas was non-saturable at hormone concentrations ranging from 2-50 nM; diethylstilbestrol (and $^{17}\alpha$ -estradiol) was only about half as effective as unlabeled $^{17}\beta$ -estradiol in competing for these specific binding sites; and the binding reaction in pancreas requires the presence of a coligand, referred to as accessory factor. Accessory factor is an endogenous substance isolated from rat pancreas that is required for specific binding of [3H]-estradiol to a soluble protein present in this tissue. The activity of this factor can be mimicked by the synthetic oligopeptide N-benzoyl-L-phenylalanyl-L-valyl-L-argininyl-p-nitroanilide, or the simpler derivative N-benzoyl-L-argininyl-p-nitroanilide. Removal of endogenous accessory factor by carboxymethyl Affi-gel Blue chromatography renders the estrogen-binding protein incompetent. Using such preparations, the capacity to reactivate binding of [3H]-estradiol by partially purified accessory factor and synthetic oligopeptide was compared. When specific binding of [3H]-estradiol was determined at concentrations ranging from 2-50 nM in the presence of limiting amounts of accessory factor, a saturable isotherm was obtained. In the presence of increasing amounts of accessory factor, specific binding was

nonsaturable as was observed with the initial cytosol. Scatchard analysis indicated: that the number of binding sites for [3H]-estradiol increased as a function of accessory factor concentration; and the affinity of these sites for [3H]-estradiol declined concomitantly. Binding of [3H]-estradiol in the presence of limiting amounts of accessory factor apparently results in a ternary complex (binding protein: [3H]-estradiol: and accessory factor). Upon further addition of factor a supramolecular structure seems to form that is nonsaturable with respect to binding of [3H]-estradiol at concentrations as high as 50 nM. One possible function of this binding system is that the coligand (accessory factor) may enable the cell to concentrate steroid, and depending on the extent of steroid binding, regulate the intensity of the reaction in which the binding complex participates.

L6 ANSWER 49 OF 62 MEDLINE on STN DUPLICATE 33
 ACCESSION NUMBER: 84085427 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 6653871
 TITLE: Identification of cytoplasmic estrogen receptors in the accessory sex organs of the rabbit and their comparison to the cytoplasmic estrogen receptor in the epididymis.
 AUTHOR: Danzo B J; Eller B C; Hendry W J 3rd
 CONTRACT NUMBER: HD-05797 (NICHD)
 HD-08295 (NICHD)
 RR-05424 (NCRR)
 SOURCE: Molecular and cellular endocrinology, (1983 Dec) Vol. 33, No. 2-3, pp. 197-209.
 Journal code: 7500844. ISSN: 0303-7207.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: (COMPARATIVE STUDY)
 Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, NON-U.S. GOV'T)
 (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 198402
 ENTRY DATE: Entered STN: 19 Mar 1990
 Last Updated on STN: 3 Feb 1997
 Entered Medline: 14 Feb 1984

AB Estrogen receptors are present in cytosol prepared from the accessory sex organs (vesicular gland, proprostate, prostate, bulbourethral gland) of sexually immature and of sexually mature rabbits. The receptor in these organs from animals of both age groups has a sedimentation coefficient of 8-10S on low ionic strength (0.01 M KCl) sucrose gradients. Under high ionic strength (0.4 M KCl) conditions, the receptor sediments at approximately 4S. The cytoplasmic estrogen receptor from the epididymis shows age-dependent changes in its sedimentation coefficient. It is 8S under low ionic strength conditions when prepared from immature rabbits and 4S under identical conditions when prepared from sexually mature animals. Although the dissociation constant of the cytoplasmic estrogen receptor in the immature and mature epididymis and accessory sex organs remains constant during development (approximately 0.1 nM), the number of available cytoplasmic estrogen binding sites declines from about 160 fmoles/mg cytosol protein in the immature rabbit to about 40 fmoles/mg cytosol protein in the adult animal. The estrogen receptor in the accessory sex organs is highly specific, the relative affinities of various potential competitors being: estradiol and estrone = 1, diethylstilbestrol = 0.3, estriol = 0.2, tamoxifen = 0.08, testosterone = 0.0004 and 5 alpha-DHT = 0.00005. Changes with age in the physicochemical characteristics of the estrogen receptor and in the concentration of binding sites suggest that the estrogen receptor may be involved in the development and physiological regulation of the male reproductive tract.

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ACCESSION NUMBER: 1983:234095 BIOSIS
DOCUMENT NUMBER: PREV198375084095; BA75:84095
TITLE: EFFECTS OF SUPPLEMENTATION WITH IMPUBERAL OR ADULT
TESTICULAR PROTEIN EXTRACTS ON GENITAL TRACT AND TESTICULAR
HISTOLOGY AS WELL AS HORMONAL LEVELS IN ADULT BUSULFAN
TREATED RATS.
AUTHOR(S): HOCHEREAU-DE REVIERS M T [Reprint author]; VIGUIER-MARTINEZ
M C; PERREAU C
CORPORATE SOURCE: STATION DE PHYSIOLOGIE DE LA REPRODUCTION, F-37 380
NOUZILLY, FRANCE
SOURCE: Andrologia, (1982) Vol. 14, No. 4, pp. 297-305.
CODEN: ANDRDQ. ISSN: 0303-4569.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Twenty-four adult Wistar rats received 1 s.c. injection of busulfan (10
mg/kg BW [body weight]) on day 0. They were injected daily from day 1 to
day 10 either with BSA [bovine serum albumin] (1 and 2 mg/rat, n = 5,
respectively), with acetic extract of adult ram testicular cytosol (2
mg/rat, n = 10) or with acetic extract of impuberal calf testicular
cytosol (2 mg/rat, n = 4). Ten animals served as control. Animals were
killed on day 17. Busulfan treatment induced decrease of total volumes of
intertubular tissue and of Leydig cells per testis, of accessory glands
and of germ cells from type A spermatogonia to zygotene spermatocytes.
Supplementation with adult testicular extract did not modify accessory
glands but increased Leydig cell total volume, individual cellular and
nuclear areas and Sertoli cell nuclear areas. It decreased further the
germ cells from A spermatogonia to zygotene primary spermatocytes.
Supplementation with impuberal testicular extract did not modify accessory
glands, Leydig cell total volume, individual cellular and nuclear areas or
Sertoli cell nuclear area. It increased the germ cells from A
spermatogonia to zygotene primary spermatocytes to values intermediate
between those of control and busulfan treated rats.

L6 ANSWER 51 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on
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ACCESSION NUMBER: 1982:129797 BIOSIS
DOCUMENT NUMBER: PREV198223059789; BR23:59789
TITLE: ACCESSORY FACTOR INDUCES VARIABLE CAPACITY OF A
RAT PANCREATIC CYTOSOLIC PROTEIN TO BIND TRITIUM
LABELED ESTRADIOL.
AUTHOR(S): BOCTOR A M [Reprint author]; BAND P; GROSSMAN A
CORPORATE SOURCE: NEW YORK UNIV MED CENT, NEW YORK, NY 10016, USA
SOURCE: Federation Proceedings, (1982) Vol. 41, No. 4, pp. ABSTRACT
5220.
Meeting Info.: 66TH ANNUAL MEETING OF THE FEDERATION OF
AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY, NEW ORLEANS,
LA., USA, APRIL 15-23, 1982. FED PROC.
CODEN: FEPR7. ISSN: 0014-9446.
DOCUMENT TYPE: Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L6 ANSWER 52 OF 62 EMBASE COPYRIGHT (c) 2007 Elsevier B.V. All rights
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ACCESSION NUMBER: 82152356 EMBASE
DOCUMENT NUMBER: 1982152356
TITLE: Accessory factor induces variable capacity of a
rat pancreatic cytosolic protein to bind
3H-estradiol.
AUTHOR: Boctor A.M.; Band P.; Grossman A.

CORPORATE SOURCE: New York Univ. Med. Cent., New York, NY 10016, United States
SOURCE: Federation Proceedings, (1982) Vol. 41, No. 4, pp. No. 5220. .
CODEN: FEPRA7
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
LANGUAGE: English
ENTRY DATE: Entered STN: 9 Dec 1991
Last Updated on STN: 9 Dec 1991
DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L6 ANSWER 53 OF 62 MEDLINE on STN DUPLICATE 34
ACCESSION NUMBER: 82060300 MEDLINE
DOCUMENT NUMBER: PubMed ID: 6946502
TITLE: Requirement for an accessory factor for binding of [3H]estradiol to protein in the cytosol fraction of rat pancreas.
AUTHOR: Boctor A M; Band P; Grossman A
CONTRACT NUMBER: AM-20084 (NIADDK)
SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (1981 Sep) Vol. 78, No. 9, pp. 5648-51.
Journal code: 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198201
ENTRY DATE: Entered STN: 16 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 28 Jan 1982

AB Supernatant fractions from rat pancreas bind approximately 300 fmol of [3H]estradiol per mg of protein when incubated with 5 nM [3H]estradiol for 1 hr at room temperature. Passage through gel filtration columns reduces binding in the eluate to approximately 1% of its initial activity. Extracts of the supernatant contain a factor that reactivates binding in gel filtrates. Addition of accessory factor to fractional eluates gives one sharp peak of activity. Since fractions that cannot be reactivated contain as much or more protein as fractions that can be reactivated, it is concluded that interaction of accessory factor and [3H]estradiol-binding protein is specific. Peptides such as antipain [(1-carboxy-2-phenylethyl)carbamoyl-L-arginyl-L-valyl-L-argininal] and, especially, N-benzoyl-L-phenylalanyl-L-valyl-L-arginine-p-nitroanilide also enhanced binding of [3H]estradiol. Accessory factor is water soluble, dialyzable, and heat stable. Although as currently purified, it contains several substances, the data suggest that at least one component of accessory factor is an oligopeptide.

L6 ANSWER 54 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 35
ACCESSION NUMBER: 1982:214863 BIOSIS
DOCUMENT NUMBER: PREV198273074847; BA73:74847
TITLE: HORMONALLY RESPONSIVE AREAS OF THE REPRODUCTIVE SYSTEM OF THE MALE GUINEA-PIG 3. PRESENCE OF CYTOPLASMIC ESTROGEN RECEPTORS.
AUTHOR(S): DANZO B J [Reprint author]; ST RAYMOND P A; DAVIES J
CORPORATE SOURCE: DEP OBSTET GYNECOL, VANDERBILT UNIV SCH MED, NASHVILLE, TENN 37232, USA
SOURCE: Biology of Reproduction, (1981) Vol. 25, No. 5, pp. 1159-1168.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The administration of estrogens to intact adult male guinea pigs resulted in a variety of morphological changes in their accessory sex organs (the seminal vesicles, prostate, common ejaculatory chamber, coagulating gland and epididymis). To ascertain if a biochemical basis existed for a direct action of estrogens on these tissues, they were examined for the presence of estrogen receptors. Cytosol prepared from the accessory sex glands contains a macromolecular binding component for estradiol-17 β . This component sediments as an 8S species on 5-20% sucrose gradients under low (0.01 M KCl) ionic strength conditions and as a 4S species under high (0.4 M KCl) ionic strength conditions. Time-course studies indicate that binding equilibrium is achieved in .apprx. 2 h; dissociation of [3H]estradiol from the binding protein is very slow ($t_{1/2}$ > 42 h). The cytoplasmic binder is highly specific for estrogens; the relative affinities of various estrogens for the protein were estradiol = 1, estrone = 0.72, diethylstilbestrol = 0.30 and estriol = 0.17. Progesterone, testosterone and 5 α -dihydrotestosterone, even at a 1000-fold excess, caused < 10% inhibition of [3H]estradiol binding to the protein. The binder present in cytosol prepared from the accessory sex organs (excluding the epididymis) exhibited an equilibrium dissociation constant of .apprx. 0.3 nM, and there were .apprx. 30 f[femto]moles of binding sites/mg of cytosol protein. The cytoplasmic estrogen binder exhibits the characteristics usually attributed to receptors and is clearly different from a 4S, nonspecific, rapidly dissociating binder that is present in plasma. On the basis of steroid specificity, the cytoplasmic estrogen binder is distinct from the androgen receptor that is present in male reproductive tissues.

L6 ANSWER 55 OF 62 MEDLINE on STN DUPLICATE 36
ACCESSION NUMBER: 80182552 MEDLINE
DOCUMENT NUMBER: PubMed ID: 7372780
TITLE: Estrogen receptors in the human prostate, seminal vesicle, epididymis, testis, and genital skin: a marker for estrogen-responsive tissues?
AUTHOR: Murphy J B; Emmott R C; Hicks L L; Walsh P C
SOURCE: The Journal of clinical endocrinology and metabolism, (1980 May) Vol. 50, No. 5, pp. 938-48. ,
Journal code: 0375362. ISSN: 0021-972X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 198007
ENTRY DATE: Entered STN: 15 Mar 1990
Last Updated on STN: 3 Feb 1997
Entered Medline: 12 Jul 1980

AB In an effort to identify those human male sex accessory tissues that may be under the physiological influence of estrogen, cytosolic and nuclear estrogen receptors were measured with two ligand systems that used either [3H]R2858 [moxesterol(11 beta-methoxy-17-ethynyl-1,3,5,(10)-estratriene-3,17 beta-diol)] or [3H]estradiol plus 1 microM dihydrotestosterone with diethylstilbestrol to correct for nonspecific binding. In seminal vesicles, high affinity binding was identified in cytosol (6 of 7 determinations) and nuclear extract (4 of 7 determinations); in the epididymis, high affinity binding was also present in the cytosol (10 of 12 determinations) and nuclear extract (10 of 11 determinations). In contrast, no high affinity binding was demonstrated in cytosol from the testis (0 of 5 determinations) or genital skin (0 of 7 determinations), and only low levels of nuclear

receptor (80 fmol/g tissue) were present in the testis (3 of 5 determinations) and genital skin (1 of 7 determinations). In nonhyperplastic prostatic tissue, high affinity binding was present [in the cytosol of periurethral zone tissue (3 of 7 determinations) and nuclear extract (1 of 7 determinations), in cytosol of peripheral zone tissue (7 of 8 determinations) and nuclear extract (4 of 7 determinations), and in prostatic carcinoma cytosol (5 of 12 determinations) and nuclear extract (10 of 13 determinations)]. In contrast, no high affinity binding was present in either cytosol or nuclear extract from benign hyperplastic prostatic tissue. The finding of estrogen receptors in the human epididymis, seminal vesicle, and prostatic carcinoma suggests that estrogen, in addition to androgen, may act in the physiological regulation of these organs. However, the direct role of estrogen in the induction and maintenance of benign prostatic hyperplasia remains to be defined.

L6 ANSWER 56 OF 62 MEDLINE on STN DUPLICATE 37
 ACCESSION NUMBER: 80034436 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 493127
 TITLE: Stimulation of oligonucleotide binding of estradiol receptor complexes by accessory proteins.
 AUTHOR: Thanki K H; Beach T A; Bass A I; Dickerman H W
 SOURCE: Nucleic acids research, (1979 Aug 24) Vol. 6, No. 12, pp. 3859-77.
 Journal code: 0411011. ISSN: 0305-1048.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 197912
 ENTRY DATE: Entered STN: 15 Mar 1990
 Last Updated on STN: 15 Mar 1990
 Entered Medline: 20 Dec 1979

AB During purification of E2R using oligo(dT)-cellulose chromatography, a receptor accessory factor (RAF) was identified in the cytosol of mouse kidney. This factor stimulates the binding of purified E2R to oligo(dT)-, oligo(dC)-, and oligo(dA)-cellulose as well as to DNA cellulose. It is a heat-stable, trypsin-resistant protein with an apparent molecular weight of between 10 and 30,000 daltons. Although structurally unrelated, similar stimulation of oligonucleotide binding was seen with calf thymus histones and, to a lesser extent, egg white lysozyme. Individual histones, especially H2a, H2B, and H3, also facilitate rebinding of purified E2R to oligo(dT)-cellulose, while H1 is less effective. Furthermore, histones stabilize the holoreceptor during sedimentation at 4 degrees and 12 degrees C. The N- and C-terminal half molecules of H2b were generated by cyanogen bromide-mediated cleavage and the N-terminal half was found to duplicate the effects of the parent molecule, both in binding and holoreceptor stabilization. These data suggest that the in vivo binding of E2R to DNA can be modulated by accessory proteins of cytosol and nuclear origin.

L6 ANSWER 57 OF 62 BIOSIS COPYRIGHT (c) 2007 The Thomson Corporation on STN DUPLICATE 38
 ACCESSION NUMBER: 1979:179705 BIOSIS
 DOCUMENT NUMBER: PREV197967059705; BA67:59705
 TITLE: LOCALIZATION METABOLISM AND BINDING OF ESTROGENS IN THE MALE RAT.
 AUTHOR(S): ROBINETTE C L [Reprint author]; MCGRAW R G; CRICCO R P; MAWHINNEY M G
 CORPORATE SOURCE: DEP SURG, W VA UNIV MED CENT, MORGANTOWN, W VA 26506, USA
 SOURCE: Archives of Biochemistry and Biophysics, (1978) Vol. 191, No. 2, pp. 517-524.

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Estrogen assimilation by male Wistar rats was examined in several accessory sex organs (seminal vesicles and anterior, dorsal, lateral and ventral prostates) as well as in a variety of nonaccessory sex organs. When [3H]estradiol was injected into intact 3-4 mo. old rats in a pulse dose, no selective accumulation of radioactivity recovered as estradiol was found in the accessory sex glands when compared to other organs. This was due at least in part to the metabolism of estradiol to estrone and to the relatively low concentration of high affinity estrophilic molecules in the accessory sex organs. The order for the rate of formation of estrone from estradiol in tissues obtained from intact animals was ventral prostate > lateral and dorsal prostate > anterior prostate and seminal vesicles. Steroid specificity studies for cytosol estradiol binding by the ventral prostate and seminal vesicles revealed that estrophilic molecules exist in these organs. Based on Scatchard plot analyses in 24 h castrates, the number of available estradiol binding sites was too low in the ventral prostate to quantify accurately, but the seminal vesicles contained distinctly more estrophilic activity than the ventral prostate. The affinity for the seminal vesicle cytosol estradiol-estrophile binding exceeded that quantified for the seminal vesicle dihydrotestosterone-androphile reaction while the number of estradiol binding sites was less than that quantified for dihydrotestosterone. In relation to the accessory sex organs of other species, the rat seminal vesicles have a relatively small amount of cytosol estrophile. That seminal vesicles catabolize less estradiol and contain significantly more estrophilic activity than the ventral prostate is consistent with the noted estrogenic sensitivity of the seminal vesicles and lack thereof in the rat ventral prostate. With aging of the rat from 3-4 mo. to 22-26 mo., the affinity of the seminal vesicle estradiol-estrophile interaction was unchanged but the number of binding sites increased significantly.

L6 ANSWER 58 OF 62 MEDLINE on STN DUPLICATE 39
ACCESSION NUMBER: 78067155 MEDLINE
DOCUMENT NUMBER: PubMed ID: 73547
TITLE: Characterization of the binding of a potent synthetic androgen, methyltrienolone, to human tissues.
AUTHOR: Menon M; Tananis C E; Hicks L L; Hawkins E F; McLoughlin M G; Walsh P C
SOURCE: The Journal of clinical investigation, (1978 Jan) Vol. 61, No. 1, pp. 150-62.
Journal code: 7802877. ISSN: 0021-9738.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 197802
ENTRY DATE: Entered STN: 14 Mar 1990
Last Updated on STN: 14 Mar 1990
Entered Medline: 23 Feb 1978

AB The potent synthetic androgen methyltrienolone (R 1881), which does not bind to serum proteins, was utilized to characterize binding to receptors in human androgen responsive tissues. Cytosol extracts prepared from hypertrophic prostates (BPH) were utilized as the source of receptor for the initial studies. High affinity binding was detected in the cytosol of 29 of 30 samples of BPH (average number of binding sites, 45.8 ± 4.7 fmol/mg of protein; dissociation constant, 0.9 ± 0.2 nM). This binding had the characteristics of a receptor: heat lability, precipitability by 0-33% ammonium sulfate and by protamine sulfate, and 8S sedimentation coefficient. High affinity binding was also detected in cytosol prepared

from seminal vesicle, epididymis, and genital skin but not in non-genital skin or muscle. However, similar binding was demonstrated in the cytosol of human uterus. The steroid specificities of binding to the cytosol of male tissues of accessory reproduction and of uterus were similar in that progestational agents were more effective competitors than natural androgens. Binding specificities in cytosol prepared from genital skin were distinctly different and were similar to those of ventral prostate from the castrated rat in that dihydrotestosterone was much more potent than progestins in competition. Thus binding of R 1881 to the cytosol of prostate, epididymis, and seminal vesicle has some characteristics of binding to a progesterone receptor. When the nuclear extract from BPH was analyzed, high affinity binding was demonstrated that conformed to the specificities of binding to an androgen receptor. Here dihydrotestosterone was a more potent competitor than progestational agents. Similar patterns of binding were detected in the crude nuclear extracts from seminal vesicle, epididymis, and genital skin but not in uterus, muscle, or non-genital skin. We conclude that the androgen receptor is not demonstrable in the cytosol of prostate, epididymis, or seminal vesicle of non-castrated men but can be measured in the cytosol of genital skin and the nuclear extracts of androgen responsive tissues. Because steroid hormones exert their major influence within the nucleus of target tissues, the measurement of nuclear receptor may provide valuable insight into the regulation of growth of target tissues.

L6 ANSWER 59 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1977:104085 CAPLUS
 DOCUMENT NUMBER: 86:104085
 TITLE: Testicular feminization syndrome: a model of chemical information non-transfer
 AUTHOR(S): Northcutt, Robert C.; Toft, David O.
 CORPORATE SOURCE: Div. Endocrinol., Mayo Clin., Rochester, MN, USA
 SOURCE: Phys. Chem. Bases Biol. Inf. Transfer, [Proc. Int. Colloq.], 1st (1975), Meeting Date 1974, 229-36.
 Editor(s): Vasileva-Popova, Julia G. Plenum: New York, N. Y.
 CODEN: 34XOAO
 DOCUMENT TYPE: Conference
 LANGUAGE: English
 AB A case of complete testicular feminization is presented in which no cytosol receptor for dihydrotestosterone could be detected in the excised sexual accessory structures. A brief outline of the clin. syndrome is discussed.

L6 ANSWER 60 OF 62 MEDLINE on STN DUPLICATE 40
 ACCESSION NUMBER: 75090251 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 4374940
 TITLE: High-affinity binding of oestradiol-17beta by cytosols from testis interstitial tissue, pituitary, adrenal, liver and accessory sex glands of the male rat.
 AUTHOR: van Beurden-Lamers W M; Brinkmann A O; Mulder E; van der Molen H J
 SOURCE: The Biochemical journal, (1974 Jun) Vol. 140, No. 3, pp. 495-502.
 Journal code: 2984726R. ISSN: 0264-6021.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 197504
 ENTRY DATE: Entered STN: 10 Mar 1990
 Last Updated on STN: 10 Mar 1990

Entered Medline: 8 Apr 1975

AB The specificity of the binding of oestradiol-17beta by cytoplasmic fractions of several tissues of the male rat was investigated. 1. Agar-gel electrophoresis, Sephadex chromatography, adsorption by dextran-coated charcoal and sucrose-gradient centrifugation were used to estimate the binding capacity and specificity. The four different methods all gave similar results for the capacity of the specific oestradiol-17beta-binding macromolecules in the testis. 2. The presence of a specific saturable binding protein with a sedimentation coefficient of 8S was demonstrated in liver, adrenal, pituitary, prostate, epididymis and testis interstitial tissue. The highest concentration of oestradiol-17beta-binding macromolecules was found in testis interstitial tissue (0.12pmol/mg of protein) and in the pituitary (0.075pmol/mg of protein). 3. The oestradiol-17beta receptor in the testis cytosol showed the characteristics of a protein with respect to Pronase treatment and temperature sensitivity. In competition experiments with different steroids the receptor showed a high affinity for oestradiol-17beta, a moderate affinity for diethylstilboestrol and oestradiol-17alpha and a low affinity for estrone, estriol, testosterone and 5alpha-dihydrotestosterone (17beta-hydroxy-5alpha-androstan-3-one). 4. The wide distribution of oestradiol-17beta receptors in the male rat is in apparent contradiction to the current concept of the specificity of steroid-hormone action. Further research is required to investigate a possible physiological meaning of the presence of specific receptors in the different tissues.

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ACCESSION NUMBER: 75042540 EMBASE

DOCUMENT NUMBER: 1975042540

TITLE: High affinity binding of oestradiol 17β by cytosols from testis interstitial tissue, pituitary, adrenal, liver and accessory sex glands of the male rat.

AUTHOR: Van Beurden Lamers W.M.O.; Brinkmann A.O.; Mulder E.; Van Der Molen H. J.

CORPORATE SOURCE: Dept. Biochem., Med. Fac., Erasmus Univ., Rotterdam, Netherlands

SOURCE: Biochemical Journal, (1974) Vol. 140, No. 3, pp. 495-502. .
CODEN: BIJOAK

DOCUMENT TYPE: Journal

FILE SEGMENT: 037 Drug Literature Index
029 Clinical Biochemistry
003 Endocrinology

LANGUAGE: English

AB The specificity of the binding of estradiol 17β by cytoplasmic fractions of several tissues of the male rat was investigated. Agar gel electrophoresis, Sephadex chromatography, adsorption by dextran coated charcoal and sucrose gradient centrifugation were used to estimate the binding capacity and specificity. The four different methods all gave similar results for the capacity of the specific estradiol 17β binding macromolecules in the testis. The presence of a specific saturable binding protein with a sedimentation coefficient of 8S was demonstrated in liver, adrenal, pituitary, prostate, epididymis and testis interstitial tissue. The highest concentration of estradiol 17β binding macromolecules was found in testis interstitial tissue (0.12 pmol/mg of protein) and in pituitary (0.075 pmol/mg of protein). The estradiol 17β receptor in the testis cytosol showed the characteristics of a protein with respect to Pronase treatment and temperature sensitivity. In competition experiments with different steroids the receptor showed a high affinity for estradiol 17β, a moderate affinity for diethylstilbestrol and estradiol 17α and a low affinity for estrone, estriol, testosterone and 5α

dihydrotestosterone (17 β hydroxy 5 α androstan 3 one). The wide distribution of estradiol 17 β receptors in the male rat is in apparent contradiction to the current concept of the specificity of steroid hormone action.

L6 ANSWER 62 OF 62 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1975:54737 CAPLUS
DOCUMENT NUMBER: 82:54737
TITLE: Light and electron microscope studies on lipid stained by malachite green in the male reproductive tract of the rabbit, hamster, and mongoose
AUTHOR(S): Cummins, J. M.; Bernstein, M. H.; Teichman, R. J.
CORPORATE SOURCE: Sch. Med., Univ. Hawaii, Honolulu, HI, USA
SOURCE: Journal of Reproduction and Fertility (1974), 41(1), 75-83
CODEN: JRPFA4; ISSN: 0022-4251
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Reproductive tracts from male rabbits, hamsters, and mongooses were fixed in glutaraldehyde containing malachite green. The technique stains phospholipids, glycolipids, fatty acids, and cholesterol, and is known to retain a lipid within spermatozoa which is lost during conventional fixation. In rabbit spermatozoa, the lipid has been identified as choline plasmalogen, which accumulates in the postacrosomal region of the head during epididymal transit. In testes, malachite green stained Leydig cell granules and cytoplasmic inclusions in maturing spermatids. Large quantities of stained material were evident in the epididymides and accessory glands, including basal cell lysosomes, which increased in size and frequency after castration, supranuclear cytosomelike bodies, material associated with smooth endoplasmic reticulum, vesicles distributed throughout the principal cells of the epithelium, and material around the stereocilia of the epididymis. Amts. of material in the epididymal lumen increased markedly from caput to cauda, indicating active secretion.

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L1 113 E4-E6
L2 164 CYTOSO? (S) ACCESSORY
L3 1 L1 AND L2
L4 2 L2 AND ARRAY
L5 1 L4 NOT L3
L6 62 DUP REM L2 (102 DUPLICATES REMOVED)

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